



AGENDA
RIO DELL CITY COUNCIL
REGULAR MEETING – 6:30 P.M.
TUESDAY, DECEMBER 3, 2013
CITY COUNCIL CHAMBERS
675 WILDWOOD AVENUE, RIO DELL

WELCOME . . . By your presence in the City Council Chambers, you are participating in the process of representative government. Copies of this agenda, staff reports and other material available to the City Council are available at the City Clerk's office in City Hall, 675 Wildwood Avenue. Your City Government welcomes your interest and hopes you will attend and participate in Rio Dell City Council meetings often.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Office of the City Clerk at (707) 764-3532. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

THE TYPE OF COUNCIL BUSINESS IS IDENTIFIED IMMEDIATELY AFTER EACH TITLE IN BOLD CAPITAL LETTERS

A. CALL TO ORDER

B. ROLL CALL

C. PLEDGE OF ALLEGIANCE

D. CEREMONIAL MATTERS

1) 2013/1203.01 - Proclamation In Recognition of Human Rights Awareness Month

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E. PUBLIC PRESENTATIONS

This time is for persons who wish to address the Council on any matter not on this agenda and over which the Council has jurisdiction. As such, a dialogue with the Council or staff is not intended. Items requiring Council action not listed on this agenda may be placed on the next regular agenda for consideration if the Council directs, unless a finding is made by at least 2/3rds of the Councilmembers present that the item came up after the agenda was posted and is of an urgency nature requiring immediate action. Please limit comments to a maximum of 3 minutes.

F. CONSENT CALENDAR

The Consent Calendar adopting the printed recommended Council action will be enacted with one vote. The Mayor will first ask the staff, the public, and the Council members if there is anyone who wishes to address any matter on the Consent Calendar. The matters removed from the Consent Calendar will be considered individually in the next section, "SPECIAL CALL ITEMS".

- 1) 2013/1203.02 - Approve Minutes of the November 12, 2013 Special Meeting
(ACTION) 2
- 2) 2013/1203.03 - Approve Resolution No. 1213-2013 Authorizing the Adoption of
the Humboldt Operational Area Hazard Mitigation Plan (ACTION) 13
- 3) 2013/1203.04 - Approve Amendment to Section 10 (Automobile) of the Employment
Agreement with Jim Stretch, City Manager (ACTION) 66
- 4) 2013/1203.05 - Approve transfer of \$4,150 from Wildwood Avenue Streetscape
Project Contingency Fund to the Project Account for Construction
Administration, increasing it from \$55,000 to \$59,150 (ACTION) 68
- 5) 2013/1203.06 - Approve Pay Request No. 2 to in the amount of \$36,540.80 to SJL
Construction for the work related to the Wildwood and Davis St.
Safe Routes to School Project (ACTION) 71
- 6) 2013/1203.07 - Proposition 84 Storm Water Grant Application (RECEIVE & FILE) 75
- 7) 2013/1203.08 - Approve the Sale of the 49-Unit Rio Dell Apartments and authorize
the City Manager to execute the Subordination Agreement and
Quit Claim Deeds (ACTION) 92
- 8) 2013/1203.09 - Approve Pay Request No. 21 to Wahlund Construction/Sequoia
Construction Specialties in the amount of \$652,992.15 for work related
to the Wastewater Treatment Plant Upgrade and Disposal Project
(ACTION) 129
- 9) 2013/1203.10 - Accept Letter of Resignation from Finance Director Stephanie
Beauchaine Effective December 20, 2013 (ACTION) 143

G. SPECIAL PRESENTATIONS

- 1) 2013/1203.11 - Project Status Report by Merritt Perry, City Engineer
- 2) 2013/1203.12 - Presentation of Project of the Year Award for Wastewater Facility
& Effluent Disposal Project

H. SPECIAL CALL ITEMS/COMMUNITY AFFAIRS

- 1) "SPECIAL CALL ITEMS" from Consent Calendar
- 2) 2013/1203.13 - Approve Repair and Upgrade of City Council Chambers Public
Address System for an amount not to exceed \$6,500 (ACTION) 144

- 3) 2013/1203.14 - Provide City Manager direction on the recruitment of a City Manager/possible retention of a Professional Recruiter (**ACTION**) 149
- 4) 2013/1203.15 - Authorize the Chief of Police to execute contract with the Phoenix Information Services Group for Parking Citation Processing Services (**ACTION**) 161

I. ORDINANCES/SPECIAL RESOLUTIONS/PUBLIC HEARINGS

- 1) 2013/1203.16 - Introduce and Conduct First Reading (by title only) of Ordinance No. 302-2013 Establishing Parkland Dedication Regulations, Section 17.30.190 of the Rio Dell Municipal Code (**ACTION**) 173
- 2) 2013/1203.17 - Introduce and Conduct First Reading (by title only) of Ordinance No. 305-2013 Amending Current Parking Regulations, Section 17.30.180 of the Rio Dell Municipal Code (**ACTION**) 185
- 3) 2013/1203.18 - Introduce and Conduct First Reading (by title only) of Ordinance No. 309-2013 Amending the Current Design Review Regulations, Section 17.25.050(3) of the Rio Dell Municipal Code (**ACTION**) 196
- 4) 2013/1203.19 - Introduce and Conduct First Reading (by title only) of Ordinance No. 310-2013 Amending Council Meeting Regulations, Section 2.05.070 (Holidays) of the Rio Dell Municipal Code (**ACTION**) 204
- 5) 2013/1203.20 - Introduce and Conduct First Reading (by title only) of Ordinance No. 311-2013 Amending Current Nuisance Regulations, Chapter 8.10 of the Rio Dell Municipal Code (**ACTION**) 207

J. REPORTS/STAFF COMMUNICATIONS

1. City Manager
2. Chief of Police
3. Finance Director – October Check Register 249
4. Community Development Director

K. COUNCIL REPORTS/COMMUNICATIONS

L. ANNOUNCEMENT OF ITEMS TO BE DISCUSSED IN CLOSED SESSION AS FOLLOWS: **No Closed Session Items Scheduled**

M. ADJOURNMENT

*The next regular meeting will be on December 17, 2013
at 6:30 p.m. in City Hall Council Chambers*

PROCLAMATION
In Recognition of
HUMAN RIGHTS AWARENESS MONTH
December 2013

WHEREAS, the United Nations General Assembly adopted The Universal Declaration of Human Rights in December 1948. This marked the first attempt in human history to set down the minimum rights every person should enjoy; and

WHEREAS, this document states the necessity “to recognize the inherent dignity of equal and inalienable rights of all members of the human family in the foundation of freedom, justice and peace in the world,” to which everyone is entitled “without distinction of any kind to race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or status;” and

WHEREAS, The Universal Declaration of Human Rights has inspired international covenants, treaties and agreements not only protecting the rights of men and women of all races and creeds, but specifically enumerating and protecting the rights and unique needs of children, indigenous and tribal peoples, refugees and political prisoners; and

WHEREAS, the County of Humboldt, in compliance with California State statutes, adopted ordinances establishing and defining the work of the Humboldt County Human Rights Commission to aid in the eradication of discrimination based on color, race, religion, religious creed, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, familial status, source of income, gender identity, gender expression, age, sexual orientation or socioeconomic status.

THEREFORE, BE IT PROCLAIMED that the City Council of the City of Rio Dell hereby proclaims **December 2013** as **HUMAN RIGHTS AWARENESS MONTH** and encourages all citizens to educate themselves about The Universal Declaration of Human Rights and the privileges we enjoy in a free society.

Dated: _____

Jack Thompson, Mayor

**RIO DELL CITY COUNCIL
CLOSED SESSION
SPECIAL MEETING
NOVEMBER 12, 2013
MINUTES**

The closed session/special meeting of the Rio Dell City Council was called to order at 6:00 p.m. by Mayor Thompson.

ROLL CALL: Present: Mayor Thompson, Councilmembers Johnson, Wilson and Woodall

Absent: Councilmember Marks (excused)

Others Present: (Closed Session) City Manager Stretch and City Attorney Gans
(Special Meeting) City Manager Stretch, Wastewater Superintendent Chicora and City Clerk Dunham

Absent: Chief of Police Hill, Finance Director Beauchaine, Community Development Director Caldwell and Water/Roadways Superintendent Jensen (excused)

ANNOUNCEMENT OF ITEMS TO BE DISCUSSED IN CLOSED SESSION

Mayor Thompson announced the Council would be adjourning to closed session to consider initiation of litigation pursuant to Subdivision (C) of Section 54956.9; 1 potential case (facts and circumstances not yet known to adverse parties).

The Council adjourned to closed session at 6:02 p.m.

The Council reconvened into open session at 6:30 p.m.

ORAL ANNOUNCEMENTS

City Attorney Gans announced in closed session a motion was made by Councilmember Woodall and seconded by Councilmember Wilson, with all four Councilmembers present voting in favor of the motion to contact parties responsible for defects in the Water Infiltration Gallery and principally the design engineer, SHN Consulting Engineers to initiate litigation if necessary.

CEREMONIAL MATTERS

Proclamation in Recognition and Support of the Great American Smokeout

Mayor Thompson read the proclamation in recognition and support of the American Cancer Society's Great American Smokeout on November 21, 2013.

Sylvia Jutila, present to receive the proclamation thanked the Council for the support and said her hope is that people will learn that if they can quit using tobacco for 1 day they can quit for a lifetime. She warned the public about the potential risks of electronic cigarettes and provided Quit Smoking and Quit Chewing Tobacco Kits sponsored by the Tobacco-Free Humboldt Program and the American Cancer Society.

PUBLIC PRESENTATIONS

John Coleman expressed his support for Sylvia Jutila and her efforts to encourage people to stop smoking and advised the Council on proper use of their microphones.

Nick Angeloff commented that he tried electronic cigarettes and agrees with Sylvia Jutila that although they claim that electronic cigarettes help people quit smoking he actually found himself smoking more since he could smoke them in places where regular smoking is prohibited.

He then provided the Council with a brief update on the east-west rail efforts and offered to e-mail to Council and staff a copy of the State Rail Plan for information purposes. He provided a handout on Railroad Investment Projects and how those projects create jobs and stimulate the economy. He also commented that the Business Incubator Program and the Eagle Prairie Arts District were going well.

CONSENT CALENDAR

City Manager Stretch asked that Item 6 be removed from the consent calendar for separate discussion. Likewise, Councilmember Johnson asked that Item 5 be removed.

Motion was made by Woodall/Johnson to approve the consent calendar including the approval of minutes of the October 15, 2013 regular meeting; approval of Pay Request No. 20 to Wahlund Construction/Sequoia Construction Specialties in the amount of \$556,520.84 for work related to the Wastewater Treatment Plant Upgrade and Disposal Project; authorizing the City Manager to execute a contract amendment with Kurt Hirtzer Inspection Services extending Construction Management services through December 31, 2013 for the Wastewater Treatment Plant Upgrade and Disposal Project; to receive and file the Budget Variance Report by Fund Type and Comparative Balance Sheet for the year ending June 30, 2013; approve Pay Request No. 1 in the amount of \$439,644.28 to Cal Electro for Wildwood Ave. Streetscape Improvement Project; approve cancellation of the November 19, 2013 regular City Council meeting; and authorize the establishment of Internal Service Fund 005 titled Administrative Fleet. Motion carried 4-0.

SPECIAL CALL ITEMS/COMMUNITY AFFAIRS

Ratify City Manager's Action to Approve Change Order No. 2 in the Amount of \$3,191.33 for Sidewalk Replacement within the Wildwood Ave. Streetscape Improvement Project

Councilmember Johnson said he didn't have a problem with the change order but wanted to know if the adjacent property owners were notified of their responsibility to repair a portion of the sidewalk. City Manager Stretch explained that it was determined that 2/3 of the sidewalk repairs identified were the City's responsibility and because the contractor's concrete crew was in town completing the other concrete work he authorized the repairs to prevent potential liability to the City by not repairing the damaged sidewalk. Also it was cheaper to take advantage of the contractor while he was already here and utilize the project savings available.

Motion was made by Johnson/Wilson to ratify the City Manager's action to approve Change Order No. 2 in the amount of \$3,191.33 for sidewalk replacement within the Wildwood Ave. Streetscape Improvement Project. Motion carried 4-0.

Approve Modification of Employment Agreement with City Manager James R. Stretch

City Manager Stretch explained in November of 2012 his contract was modified to allow him to work up to 40 hours/week when necessary; assuming that the demand would normally allow him to work ¾ time. Because of that, the benefit accruals were left at ¾ time. He said now that he is down to the last 6 months of the contract period; he believes the position will require a full time schedule. Accordingly, he is requesting the contract be amended to reflect full-time employment benefits.

He noted another amendment he failed to include in the staff report has to do with retirement. He said currently the City pays him directly 14% in lieu of a retirement contribution which is taxed; the amendment will say that the employer shall contribute 14% of his salary to the ICMA Deferred Compensation Plan.

Councilmember Wilson questioned the automobile allowance of \$300 for use of the City's Manager's personal vehicle and said he understood that amount would be reduced due to the acquisition of the new admin vehicle. City Manager Stretch explained he is recommending the automobile allowance remain at the ¾ time calculation because he will continue to use his personal vehicle the majority of the time. He said should the time he uses the admin vehicle increase, he will ask staff to adjust the automobile allowance accordingly.

Motion was made by Wilson/Woodall to approve an amendment to the April 17, 2012 Employment Agreement of City Manager James R. Stretch and the November 20, 2012 amendment to that agreement to reflect full time employment as noted. Motion carried 4-0.

Determine City Position on Senate Bill 405 Related to Phase Out of Single-Use Plastic Bags in California

City Manager Stretch stated the City received a letter from Senator Alex Padilla who serves as Chair on the Senate Energy, Utilities and Communications Committee, asking for support of Senate Bill 405 which would phase out the use of single-use plastic bags in California. He explained the bill would prohibit grocery stores and large retailers from providing single-use

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bags to customers beginning January 1, 2015 and July 1, 2016 for convenience stores and certain other stores.

He further explained the bill in part requires that all plastic, paper or cloth reusable grocery bags after July 1, 2016 must be able to be used 125 times, be clean, have specific information visible on the bag, not contain certain materials such as lead or heavy metals, have the ability to carry 22 pounds of contents, that stores have reusable bags available at point of sale, participants of the California Supplemental Food Program for Women, Infants and Children be provided with a reusable bag at no cost, stores to make a compostable grocery bag available for purchase, and gives authority to a City, County or State to impose and collect penalties for violators.

He said according to CalRecycle, only 3% of single-use plastic bags in the State are actually recycled and that it takes plastic bags 1,000 years to degrade. He went on to identify agencies in support and those in opposition of SB 405.

Councilmember Johnson asked if this applies to all stores such as sporting goods stores. City Manager Stretch said the bill would only apply to grocery stores, not including plastic produce bags.

Mayor Thompson asked for public comment on the proposed bill.

Carol Theuriet asked if everyone had read the entire bill as proposed and said it also references paper grocery bags and asked why they are such a threat when they have numerous other uses. She commented that she is totally against the bill as proposed and said the idea should be to recycle materials rather than eliminate them. She asked the Council to carefully consider the impacts of the bill including potential effects on current industry.

Richard Newman commented that his wife uses the plastic “dog-gone-poo bags” located around the City but he sees the bags scattered all over; implying that kids must be taking them for whatever reason and throwing them on the ground.

John Coleman commented that he prefers using paper grocery bags.

Councilmember Johnson said his understanding is that the bill will require that paper grocery bags must be able to be used 125 times. City Manager Stretch explained that no matter what material the bags are, they have to be able to be used 125 times and be able to be cleaned.

Councilmember Johnson pointed out that in his household whether they use paper or plastic grocery bags; they find ways to reuse them.

Councilmember Woodall commented that she works at Safeway and has had to handle reusable bags that customers bring in that are not only dirty but have had blood and other unknown matter on them. If the idea is to simply ban single-use plastic grocery bags and provide

paper grocery bags, she does not support charging customers for those bags. She also noted that she doesn't feel the cost to provide free reusable bags to WIC recipients should be passed on to the stores because there will likely be abuse of the system since it will be difficult to track who has or has not gotten the bags. She expressed her opposition to the bill.

Councilmember Wilson said any free bags should be done through that particular program; not the store. He commented that he is against plastic grocery bags because they often end up on the side of the roadways, in trees and anywhere else. He agreed that many of the reusable bags are not being cleaned which is not good either. He said he cannot support the bill as proposed.

Mayor Thompson stated that although he currently serves as Chair on the Humboldt Waste Management Authority which is one of the agencies that supports SB 405, he opposes several components of the proposed bill. He suggested plastic bag manufacturers basically "buy into the system" with a redemption value for each recycled bag like glass and plastic bottles. He said this would encourage people to pick up bags along the roads and beaches and recycle them. He said to educate people to become more responsible with regard to this issue is a big task. Another aspect to consider is the health issue related to bacteria on reusable bags. He said banning plastic bags may cause more harm to people than good and it is not the answer to cleaning up the bay. He reiterated that there needs to be a value put on plastic bags to get more people to recycle them.

Councilmember Woodall commented that manufacturers should also be required to take a look at packaging.

City Manager Stretch asked for direction from the Council as to whether they would support SB 405 if it was amended, and if they would like the comments expressed this evening communicated to Senator Padilla.

Motion was made by Wilson/Johnson to direct staff to draft a letter for the Mayor's signature to Senator Padilla and the League of California Cities communicating the comments and concerns expressed during discussion and consideration of SB 405. Motion carried 4-0.

Conceptual Approval for Contracting with Humboldt Waste Management Authority for Recycling Program Administration

City Manager Stretch provided a staff report and explained that he recently inherited the administration and reporting for the City's State mandated recycling programs. He said although it is a great program, it requires a lot of time to manage and he simply doesn't have the time to do what needs to be done. He said he has been in discussions with the Executive Director of the Humboldt Waste Management Authority over the past couple of months to determine the feasibility of their providing this service to the City and they have concluded and he agrees that it would be of mutual benefit to both organizations. He noted that the City currently receives approximately \$10,000/yr. for recycling efforts which is about what it will cost to fund the

program. He said that before he develops a contract and sends it to the City Attorney for review he would like to know if the Council supports the concept.

Mayor Thompson called for public comment on the proposed contract.

Gary Chapman, 921 Hilda Ct. asked for clarification on the funding source for recycling. City Manager Stretch stated the City receives \$5,000/yr. from the Cal-Recycle Grant and around \$5,000/yr. from a portion of the tipping fees. Also, there are additional regional grants available for tires and other recycling programs.

Mr. Chapman expressed support for the contract since there will be no financial burden to the City.

Mayor Thompson commented that as AB-939 moves toward a 75% waste reduction requirement, it might be beneficial for the City to be connected with HWMA as they are the controlling entity for the County and they have the flexibility to adjust diversion figures so if the City isn't able to meet those goals the City would not be subject to potential fines.

City Manager Stretch pointed out that many of the figures for waste diversion come from the water hauler, Eel River Disposal (ERD). He said the bigger issue and outside of this matter is whether the City wants to report its diversion as an individual entity or be part of a regional plan.

Motion was made by Johnson/Woodall to approve in concept contracting with Humboldt Waste Management Authority for the administration and reporting of Rio Dell's recycling programs. Motion carried 4-0.

Provide City Manager Direction on City Manager Recruitment

City Manager Stretch stated with approximately 6 months remaining on his current employment contract, it is time to begin the recruitment process for his replacement. He said in reviewing his work plan he discovered that there were at least a dozen additional tasks that came up that he did not anticipate so there are a number of items yet to be completed. He questioned the Council on whether they would prefer that he continue to work on the priority items on his work plan and hire a professional recruiter; or make the recruitment and hiring of a qualified City Manager his highest priority and defer some of the items on the work plan.

Councilmember Johnson commented that he read in Western Cities magazine where a head hunter is working for the City of Eureka to hire a City Manager and it seems to be a common method for recruitment.

Mayor Thompson stated that the last City Manager recruitment process was very successful and that he has participated in the recruitment process for the City and for various external boards and committees and pointed out that during the process you learn things that you don't even think about being an issue such as the weather in Humboldt County. He suggested the City

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attempt to hire locally and suggested advertising stays within California with the exception of the League of California Cities publication.

Councilmember Wilson agreed that it would be good to hire locally and questioned whether the change in the City Manager's contract to full-time status was to allow for him to assist with the recruitment and complete his work plan.

City Manager Stretch explained that it is conceivable that not every item on the work plan will be accomplished so he is suggesting he come back to the Council with the work program to reprioritize.

Mayor Thompson suggested the work plan be brought back to Council on December 3rd to reprioritize; with City Manager recruitment being first priority.

Councilmember Wilson suggested the Council look at the list first to determine whether there is the need to hire a professional recruiter.

Councilmember Woodall asked what professional recruiters do as part of the process. City Manager Stretch said typically they will put out the flyer, screen the resumes, conduct professional background reviews of the top candidates, present a list of the top candidates for interviews, and be present to participate in the interviews along with the City Council.

Councilmember Woodall asked what the cost will be to hire a professional recruiter. City Manager Stretch stated that he has not yet received quotes however; \$18,250 was included in the 2013-14 budget for recruitment expenses which covers the cost of travel for the top candidates.

Councilmember Woodall commented that it might be wise to hire a professional recruiter so the City Manager can concentrate on his work plan.

City Manager Stretch stated he will bring back to the Council on the December 3rd agenda the cost for hiring a professional recruiter; and actively work with Cooperative Personnel Services to conduct a salary and benefit survey of comparable agencies for the position.

Mayor Thompson said with the City Manager's knowledge of the City he feels it would be advantageous to have him involved in the recruitment process as the personal touch is valuable.

City Manager Stretch commented that it will be difficult to restrict the advertising to California as Western Cities Magazine (LOCC) is distributed throughout the United States.

Motion was made by Woodall/Wilson to direct the City Manager to bring back to the Council on December 3rd, the cost of hiring a professional recruiter, and his current work plan for reprioritization. Motion carried 4-0.

Authorize City Manager to Evaluate Enrollment in California Public Employees Retirement System) CalPERS)

City Manager Stretch provided a staff report and said in 2010 the City employees bargained for staff to study the feasibility of enrolling in CalPERS for employment retirement benefits. An actuarial analysis was conducted and the results seemed favorable however CalPERS advised the City at that time that their investment portfolio had experienced some significant losses and that substantial rate increases were foreseeable. Based on that information, the Council elected not to contract with CalPERS and continue with the ICMA 457 retirement plan. He said since that time the CalPERS portfolio has stabilized, and new plans have been developed that provide reduced benefits and costs.

City Manager Stretch pointed out that in order to attract qualified candidates, whether it be for the recruitment of a City Manager, Chief of Police or other profession position, it would undoubtedly be beneficial to be enrolled in CalPERS as the employee retirement plan.

City Manager Stretch reviewed the recommended action is to authorize staff to evaluate the costs and benefits of contracting with CalPERS for employee retirement benefits, including conducting an actuarial evaluation at a cost of approximately \$2,000, and report back to the Council.

Mayor Thompson called for public comment on the evaluation of CalPERS.

Carol Theuriet, 551 Pacific Ave. stated that she felt the evaluation of CalPERS should be left to the incoming City Manager to explore with everything the current City Manager has to do. She commented that she has been reading about CalPERS and is not particularly happy about it. She said it appears they are still in a crisis with a trillion dollar deficit that the taxpayers are being asked to bail out. She said she would like to see where CalPERS is going before moving forward. She added that some CalPERS retirees are collecting more in retirement benefits than their salary when they were working and felt the City Manager's time can be better spent on the recruitment rather than having yet another thing to look into. She questioned whether this is something this small city needs.

Gary Chapman, 921 Hilda Ct. said as a participant of CalPERS he agrees that Cities that offer CalPERS as part of their benefit package are at an advantage when recruiting for a City Manager although he does not dispute what Carol Theuriet said. He noted that CalPERS is anticipating some significant cost increases.

Mayor Thompson commented that he was in favor of gathering information about CalPERS but cautioned that employees may be required to contribute as well. He said if the City could get into CalPERS for the same amount that is paid into the current retirement plan he would be in support but expressed concern about the uncertainty of CalPERS at this time. He commented that it is a fairly lengthy process to get enrolled into CalPERS and the new City Manager could be hired before it's in place.

City Manager Stretch said he will know what the costs are to enroll before that time.

Councilmember Johnson said as a CalPERS retiree he has nothing but good to say about the program and is a great benefit to have when recruiting. He pointed out there are other benefits that go along with it such as health insurance.

Councilmember Wilson stated he thought it was a good idea to get started with the evaluation.

Councilmember Woodall stated the City would be at an advantage to be able to offer CalPERS to perspective candidates. She asked for assurance that the enrollment process can be stopped at any time should it look like the plan isn't going to be feasible. City Manager Stretch explained the recommendation at this time is to simply evaluate the cost and benefits, and report back to the Council.

Motion was made by Woodall/Johnson to authorize the City Manager to once again evaluate the costs and benefits of contracting with CalPERS for employee retirement benefits, including the conduct of an actuarial evaluation at a cost of approximately \$2,000, and report back to the Council. Motion carried 4-0.

Potential Change Order on Wastewater Treatment Plant Upgrade and Disposal Project

Wastewater Superintendent Chicora provided an amended staff report including photos of the proposed construction area. He explained the current pavement plan at the wastewater treatment plant includes an asphalt overlay over an existing v-ditch which allows rain to flow through the paved area to a drain that sends the water back through the plant. He said the existing v-ditch is cracked and crumbling and the concern is that if it is paved over that area it will degrade quickly and in 3-5 years it will need to be done again. Staff's recommendation is to remove all of the degraded asphalt and construct a concrete v-ditch that will last approximately 50 years. He said the cost for this additional work using concrete is \$25,298.11 and for an asphalt v-ditch the cost would be \$17,746.11.

Councilmember Wilson pointed out that the difference in cost between asphalt and concrete is only \$8,000 so thought it would be money well spent.

Councilmember Johnson questioned the depth of the concrete in which Wastewater Superintendent Chicora responded it would be 4 inches with rebar. Councilmember Johnson asked if he felt that was adequate. Wastewater Superintendent Chicora commented that there will be no semi-truck driving over it; only Public Works service trucks and that the same thing was installed in another area at the plant in 2006 and it still looks good.

City Manager Stretch reported on the funding for the additional work and said there is approximately \$18,800 remaining in the project contingency fund with no additional change orders anticipated, leaving \$6,500 to be taken from wastewater reserves.

Motion was made by Wilson/Johnson to approve the concrete v-ditch and authorize staff to approve Potential Change Orders 85, 86, and 87. Motion carried 4-0.

Provide Staff Direction on Amendment of City Council Meeting Provisions Related to Meetings Occurring on Election Day

City Manager Stretch stated the current code provides that, if a Council meeting falls on a holiday or election day, the meeting shall be held on the following Thursday. He said the November 5th meeting was rescheduled for November 7th which resulted in no quorum. He said it really serves no public purpose to reschedule meetings on Election Day and with Council direction, staff will bring back an amendment to the code to reflect that change.

Motion was made by Johnson/Woodall to direct staff to draft an amendment to Rio Dell Municipal Code Chapter 2.05 (Council Meetings), Section 2.05.070 (Holidays) to delete any reference to rescheduling a Council meeting if it occurs on an election day. Motion carried 4-0.

REPORTS/STAFF COMMUNICATIONS

City Manager Stretch stated he had nothing further to report at this time.

Wastewater Superintendent Chicora provided a brief update on the Wastewater Treatment Plant Upgrade and Disposal Project and said the boring company installed a section of line between the two bridges and at the end of Eeloa Ave. and that the drilling contractor has completed boring almost back to the drill rig. He said they are moving forward each day and estimated 3-4 more weeks of work.

COUNCIL REPORTS/COMMUNICATIONS

Mayor Thompson commented that when the new admin car was purchased, it was reported that there was a savings of around \$1,300 and suggested the remaining funds be used for a canopy to protect the car from the weather.

City Manager Stretch clarified that there is actually \$2,100 remaining in the budget under that particular line item.

Councilmember Woodall said she would not be in favor of a canopy in the front parking lot at City Hall, but possibly in the back parking lot. There was no consensus reached to bring the matter back for consideration.

Councilmember Woodall asked when the town clock was scheduled to be turned on. City Manager Stretch said he believed PG&E had the electrical connection scheduled for November 18th and agreed to confirm the date and notify councilmembers via email.

ADJOURNMENT

There being no further business to discuss, the meeting adjourned at 8:35 p.m. to the December 3, 2013 regular meeting.

Attest:

Jack Thompson, Mayor

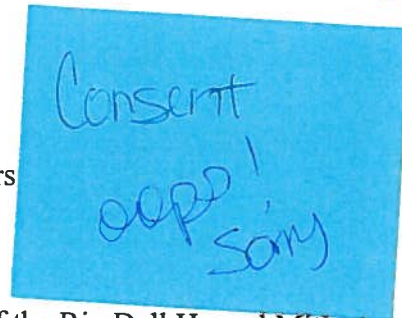
Karen Dunham, City Clerk

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December 3, 2013

TO: Honorable Mayor and City Council Members
FROM: Jim Stretch, City Manager
SUBJECT: Adopt Resolution 2013-1213 for approval of the Rio Dell Hazard Mitigation Plan



IT IS RECOMMENDED THAT THE CITY COUNCIL:

1. Review the staff report and the Adoption Resolution;
2. Approve and adopt by Resolution 2013-1213, adopting the Humboldt Operational Area Hazard Mitigation Plan 2013 Update, including City of Rio Dell Section 9 of Volume 2;
3. Direct the City Clerk to transmit a copy of the Resolution to the Humboldt County Public Works Department to be included in the final Federal Emergency Management Agency (FEMA) approval draft of the plan;
4. Authorize staff to make non-policy related changes to the plan if requested per FEMA plan approval review; and
5. Authorize staff to make application to the Pre-Disaster Mitigation (PDM) grant program and Hazard Mitigation Grant Program (HMGP) to secure funds to implement projects identified in the Rio Dell Operational Area Hazard Mitigation Plan.

BACKGROUND AND DISCUSSION

For several months the City Manager has been working with the County of Humboldt and other public agency partners on updating the City and County 2008 Hazard Mitigation Plan (HMP). The plans must be updated every 5 years. Keeping the Plan current is important because an agency only qualifies for State and Federal emergency/disaster assistance if it has a valid in effect. And, in the case of a State declared natural disaster, only jurisdictions with approved plans qualify for the State forgiveness of their 25% local share of cost.

There is another compelling reason to prepare a detailed Hazard Mitigation Plan, and that is to be able to compete for Pre-Disaster Mitigation program (PDM) monies when there is a declared emergency/disaster by the Federal government somewhere in the State. Under Federal law, 15% of the total Federal dollars allocated for a disaster must be allocated for PDM, which means that any agency in California can compete for FEMA monies to mitigate a hazard they identified in their plan.

The Disaster Mitigation Act (DMA) is federal legislation that requires proactive, pre-disaster planning as a prerequisite for certain funding available under the Robert T. Stafford Act. The DMA encourages state and local authorities to work together on pre-disaster planning. The enhanced planning network called for by the DMA helps local governments' articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk reduction projects.

Hazard mitigation is the use of long- and short-term strategies to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves strategies such as planning, policy changes, programs, projects, and other activities that can mitigate the impacts of hazards. It is impossible to predict exactly when and where disasters will occur or the extent to which they will impact an area, but with careful planning and collaboration among public agencies, stakeholders and citizens, it is possible to minimize losses that disasters can cause.

Humboldt County and a partnership of local governments within the County have developed and maintained a hazard mitigation plan to reduce risks from natural disasters and to comply with the DMA. This plan will, and has, acted as the keyway to federal funding afforded under FEMA hazard mitigation grant programs.

Federal regulations require monitoring, evaluation and updating of hazard mitigation plans. An update provides an opportunity to reevaluate recommendations, monitor the impacts of actions that have been accomplished, and determine if there is a need to change the focus of mitigation strategies. A jurisdiction covered by a plan that has expired is no longer in compliance with the DMA.

Once the hazard mitigation plan is adopted by all of the jurisdictional partners and approved by FEMA, the partnership will collectively and individually become eligible to apply for hazard mitigation project funding from both the PDM grant program and the HMGP.

The draft Plan for Rio Dell was submitted for City Council review and community comment on September 17, 2013. It was received and filed. The Council is now being asked to adopt the attached Resolution and approve the updated hazard mitigation plan.

The full Hazard Mitigation Plan Volumes 1 & 2 totals 835 pages and as a public document is on file with the Rio Dell City Clerk.

ATTACHMENTS:

- Attachment #1: Resolution of the City of Rio Dell to adopt the Humboldt Operational Area Hazard Mitigation Plan 2013 Update
- Attachment #2: Executive Summary of the Humboldt Operational Area Hazard Mitigation Plan 2013 Update
- Attachment #3: Hazard Mitigation Plan Volume 2, Section 9, entitled "City of Rio Dell Update Annex".

RESOLUTION NO. 2013-1213

**A RESOLUTION OF THE CITY OF RIO DELL
AUTHORIZING THE ADOPTION OF THE
HUMBOLDT OPERATIONAL AREA HAZARDS MITIGATION PLAN**

WHEREAS, all of Humboldt County has exposure to natural hazards that increase the risk to life, property, environment and the County's economy; and

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property; and

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established new requirements for pre and post disaster hazard mitigation programs; and

WHEREAS; a coalition of Humboldt County, Cities and Special Purpose Districts with like planning objectives has been formed to pool resources and create consistent mitigation strategies within the Humboldt Operational Area; and

WHEREAS, the coalition has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED that the City of Rio Dell:

- 1.) Adopts in its entirety Volume I and Volume II, including the Rio Dell jurisdictional Annex found in Volume II, Chapter 9, and the Appendices of Volume II of the Humboldt Operational Area Hazard Mitigation Plan (Hazard Plan).
- 2.) Will use the adopted and approved portions of the Hazard Plan to guide pre and post disaster mitigation of the hazards identified.
- 3.) Will coordinate the strategies identified in the Hazard Plan with other planning programs and mechanisms under its jurisdictional authority.
- 4.) Will continue its support of the Steering Committee and continue to participate in the Coalition Partnership as described by the Hazard Plan.
- 5.) Will help to promote and support the mitigation successes of all Hazard Plan Coalition Partners.

PASSED AND ADOPTED on this 3rd day of December 2013, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Karen Dunham, City Clerk

Jack Thompson, Mayor

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Disaster Mitigation Act (DMA) is federal legislation that requires proactive, pre-disaster planning as a prerequisite for some funding available under the Robert T. Stafford Act. The DMA encourages state and local authorities to work together on pre-disaster planning. The enhanced planning network called for by the DMA helps local governments' articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk reduction projects.

Hazard mitigation is the use of long- and short-term strategies to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves strategies such as planning, policy changes, programs, projects, and other activities that can mitigate the impacts of hazards. It is impossible to predict exactly when and where disasters will occur or the extent to which they will impact an area, but with careful planning and collaboration among public agencies, stakeholders and citizens, it is possible to minimize losses that disasters can cause. The responsibility for hazard mitigation lies with many, including private property owners; business and industry; and local, state and federal government.

Humboldt County and a partnership of local governments within the County have developed and maintained a hazard mitigation plan to reduce risks from natural disasters and to comply with the DMA. This plan will act, and has acted, as the key to funding under FEMA hazard mitigation grant programs.

PLAN UPDATE

Federal regulations require monitoring, evaluation and updating of hazard mitigation plans. An update provides an opportunity to reevaluate recommendations, monitor the impacts of actions that have been accomplished, and determine if there is a need to change the focus of mitigation strategies. A jurisdiction covered by a plan that has expired is no longer in compliance with the DMA.

The initial Humboldt County Operational Area Hazard Mitigation Plan was approved by the Federal Emergency Management Agency (FEMA) on January 25, 2008. Since then, the partnership has completed or initiated ongoing action on over 68 percent of the 272 initiatives identified in the initial plan. A comprehensive progress report of the initial plan was prepared as part of the update effort and is included in appendix D of volume 1 of this plan. Highlights of the mitigation success stories from the initial plan include the following:

- Increased participation in the National Fire Protection Association's Firewise program. Six communities in Humboldt County have successfully achieved and maintained Firewise recognition: Bridgeville, Honeydew, Orleans, Petrolia, Upper Jacoby Creek, and Willow Creek.
- Humboldt County has received \$495,000 in grant funds from the U.S. Forest Service to support the Fire-Adapted Landscapes and Safe Homes (FLASH) program. The program encourages property owners to mitigate wildfire hazards through vegetation management by awarding a rebate for the creation of defensible space around homes and strategic fuel breaks along escape routes and high-risk areas.
- The continuation of on-going earthquake and tsunami hazard mitigation programs through The Redwood Coast Tsunami Work Group (RCTWG).
- In response to significant earthquake hazards, many jurisdictions in Humboldt County have taken action in the past five years to mitigate their risk of damage. Ten jurisdictions have

taken steps toward seismic retrofitting critical facilities, such as water storage areas, fire stations, emergency operation centers, and wastewater treatment facilities.

- A Type 2 urban search and rescue (USAR) team has been established within the Humboldt Operational Area after years of planning, supported by significant training efforts, grant funding, and the placement locally of a California Emergency Management Agency (CalEMA) medium-cache USAR trailer. This is an important capacity for this earthquake-prone area that has the potential for being cut off from larger population centers after a large event. Citizens will need to depend on their own resources, and post-earthquake search and rescue in urban areas will be very important.
- The Humboldt Bay Municipal Water District (HBMWD) was successful in obtaining one Hazard Mitigation Grant and is in the process of finalizing the National Environmental Protection Act analysis for a second Hazard Mitigation Grant. Funding in the amount of \$2.85 million was obtained to replace approximately 10,000 feet of HBMWD's 18-inch Techite pipeline from the Terminal Reservoir on Samoa to the Humboldt Bay Crossing, just before the pipe goes under the bay to the Humboldt Community Services District's (HCSD) Truesdale Pump Station.
- The City of Fortuna is in the process of finalizing paperwork for a \$453,000 Hazard Mitigation Grant for the City's Wastewater Treatment Plant Flood Protection Project.
- Humboldt County completed a streambank stabilization project in 2008 along the right bank of the lower Mad River west of McKinleyville with funding from the USDA Natural Resources Conservation Service, the Governor's Office of Emergency Services, and adjacent landowners.
- Humboldt County completed a bluff stabilization project in 2012 near the end of one of the primary runways at the Arcata-Eureka Airport to remediate cumulative losses of the runway safety area due to erosion and landsliding. Work included mechanically stabilized earth walls up to 70 feet high.

Updating the plan consisted of the following phases:

- **Phase 1, Organize and Review**—A planning team was assembled to provide technical support for the plan update, consisting of key County staff from the Department of Public Works and a technical consultant. The first step in developing the plan update was to re-organize the planning partnership. The initial planning effort covered 26 local governments. This partnership was increased to 34 for the update as shown in tables ES-1 and ES-2.

A 14-member steering committee was assembled to oversee plan update, consisting of planning partner staff, citizens, and other stakeholders in the planning area. Coordination with other county, state and federal agencies involved in hazard mitigation occurred throughout the plan update process. This phase included a comprehensive review of the existing plan, the California State Hazard Mitigation Plan, and existing programs that may support or enhance hazard mitigation actions.

**TABLE ES-1.
MUNICIPAL PLANNING PARTNERS**

Humboldt County	Arcata	Blue Lake	Eureka
Ferndale	Fortuna	Rio Del	Trinidad

**TABLE ES-2.
SPECIAL-PURPOSE DISTRICT PARTNERS**

Humboldt Community Service District	Loleta Fire Protection District
Manila Community Service District	Petrolia Fire Protection District
McKinleyville Community Service District	Rio Dell Fire Protection District
Orick Community Service District	Samoa Peninsula Fire Protection District
Redway Community Service District	Willow Creek Fire Protection District
Weott Community Service District	County Service Area #4
Westhaven Community Service District	Garberville Sanitary District
Willow Creek Community Service District	Humboldt Bay Harbor, Recreation and Conservation District
Arcata Fire Protection District	Humboldt Bay Municipal Water District
Briceland Fire Protection District	Reclamation District #768
Fortuna Fire Protection District	Shelter Cove Resort Improvement District No. 1
Humboldt Fire Protection District No. 1	Southern Humboldt Community Healthcare District

- **Phase 2, Update the Risk Assessment**—Risk assessment is the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards. This process assesses the vulnerability of people, buildings and infrastructure to natural hazards. All facets of the risk assessment of the plan were re-visited by the planning team and updated with the best available data and technology. The work included the following:
 - Hazard identification and profiling
 - Assessment of the impact of hazards on physical, social and economic assets
 - Vulnerability identification
 - Estimates of the cost of potential damage.

Risk assessment models devolved from the initial planning effort were enhanced with new data and technologies that have become available since 2008. There were some limitations in the modeling due to the lack of data. The need to address these data gaps was identified in some of the mitigation initiatives presented in this plan. The results of the risk assessment were used by the planning partnership to rank risk and to gauge the potential impacts of each hazard of concern on their jurisdiction.

- **Phase 3, Engage the Public**—A public involvement strategy developed by the Steering Committee was implemented by the planning team. It included public meetings to present the risk assessment as well as the draft plan, distribution of a hazard mitigation survey, a County-sponsored website for the plan update, and multiple media releases.
- **Phase 4, Assemble the Updated Plan**—The planning team and Steering Committee assembled key information into a document to meet the DMA requirements for all planning partners. The updated plan contains two volumes. Volume 1 contains components that apply to all partners and the broader planning area. Volume 2 contains all components that are jurisdiction-specific. Each planning partner has a dedicated chapter in Volume 2.

- **Phase 5, Plan Adoption/Implementation**—Once pre-adoption approval has been granted by CalEMA and FEMA Region IX, the final adoption phase will begin. Each planning partner will individually adopt the updated plan. The plan maintenance process includes a schedule for monitoring and evaluating the plan's progress periodically and producing a plan revision every 5 years. This plan maintenance strategy also includes processes for continuing public involvement and integration with other programs that can support or enhance hazard mitigation.

RISK ASSESSMENT RESULTS

Based on the results of the risk assessment, hazards were ranked as follows for the risk they pose to the overall Humboldt Operational Area (1 represents the greatest risk and 8 the lowest):

- | | |
|-------------------|-----------------|
| 1. Earthquake | 5. Landslide |
| 2. Severe weather | 6. Drought |
| 3. Flood | 7. Tsunami |
| 4. Wildfire | 8. Dam failure. |

Each participating jurisdiction also ranked risks associated with natural hazards within its boundaries. Table ES-3 summarizes how many participating jurisdictions assigned each risk ranking (1 through 9, for highest risk to lowest risk) to each evaluated hazard of concern.

TABLE ES-3. SUMMARY OF HAZARD RANKING RESULTS										
	Number of Jurisdictions Assigning Ranking to Hazard									Not Ranked
	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	
Dam Failure	0	0	1	0	4	4	7	10	1	4
Drought	0	0	2	5	1	12	6	5	0	0
Earthquake	24	7	0	0	0	0	0	0	0	0
Flood	0	7	13	4	4	0	0	3	0	0
Landslide	0	0	1	6	12	4	6	2	0	0
Severe Weather	3	15	7	6	0	0	0	0	0	0
Tsunami	2	0	5	3	3	4	3	4	6	1
Wildland Fire	2	2	2	7	7	6	4	1	0	0

The summary of risk ranking results indicates the following general patterns:

- Earthquake, severe weather and flood generally received the highest risk rankings.
- Tsunami and wildfire tended to receive high or low rankings based on the geographic location of each jurisdiction. Tsunami was ranked as a higher risk for coastal communities; wildfire was ranked higher for warmer, drier inland jurisdictions.
- Dam failure, drought and landslide generally were ranked lower than other hazards.

MITIGATION GUIDING PRINCIPLE, GOALS AND OBJECTIVES

The following principle guided the Steering Committee and the planning partnership in selecting the initiatives contained in this plan update:

“Through partnerships and careful planning, identify and reduce the vulnerability to hazards in order to protect the health, safety, quality of life, environment, and economy of the communities within the Humboldt Operational Area.”

The Steering Committee and the planning partnership established the following goals for the plan update:

1. Protect Health and Safety
2. Protect Property
3. Protect the Economy
4. Protect Quality of Life
5. Protect Environment
6. Promote Partnerships in Planning

The following objectives were identified that meet multiple goals, acting as a bridge between the mitigation goals and actions and helping to establish priorities:

1. Eliminate or minimize disruption of local government operations caused by hazards.
2. Increase resilience of (or protect and maintain) infrastructure and critical facilities.
3. Reduce hazard-related risks and vulnerability of the populations in Humboldt County.
4. Sustain reliable local emergency operations and facilities during and after a disaster.
5. Seek to enhance emergency response capabilities within the planning area.
6. Enhance understanding of hazards and the risk they pose through public education that emphasizes awareness, preparation, mitigation, response and recovery alternatives.
7. Continually improve understanding of the location and potential impacts of hazards that impact the planning area utilizing the best available data and science as it becomes available, and share this information with all stakeholders.
8. Establish a partnership among all levels of government and the business community to improve and implement methods to protect property.
9. Develop and implement hazard mitigation strategies that reduce losses to wildlife habitat and protect water supply and quality, while also reducing damage to development.
10. Integrate hazard identification information and mitigation policies into other planning-based processes that direct or impact land uses in the planning area.
11. Enhance building codes and their proper implementations so that new construction can withstand the impacts of hazards and lessen the impact of that development on the environment's ability to absorb the impact of hazards.
12. Seek to integrate and coordinate all phases of emergency management within the planning area.

MITIGATION INITIATIVES

Mitigation initiatives presented in this update are activities designed to reduce or eliminate losses resulting from natural hazards. The update process resulted in the identification 380 mitigation initiatives for implementation by individual planning partners, as presented in Volume 2 of this plan. In addition, the steering committee and planning partnership identified countywide initiatives benefiting the whole partnership, as listed in Table ES-4.

IMPLEMENTATION

Full implementation of the recommendations of this plan will require time and resources. The measure of the plan's success will be its ability to adapt to the changing climate of planet earth as well as the field of hazard mitigation. Funding resources are always evolving, as are state and federal mandates. Humboldt County and its planning partners will assume responsibility for adopting the recommendations of this plan and committing resources toward implementation. The framework established by this plan commits all planning partners to pursue initiatives when the benefits of a project exceed its costs. The planning partnership developed this plan with extensive public input, and public support of the actions identified in this plan will help ensure the plan's success.

**TABLE ES-4.
ACTION PLAN—COUNTYWIDE MITIGATION INITIATIVES**

Hazards Addressed	Lead Agency	Possible Funding Sources or Resources	Time Line ^a	Objectives
CW-1 —Continue to participate in the planning partnership and, to the extent possible based on available resources, provide coordination and technical assistance in applications for grant funding that include assistance in cost vs. benefit analysis.				
All Hazards	Planning Partners	Grant Funding	Short term, Ongoing	6, 8, 12
CW-2 —Encourage the development and implementation of an operational area-wide hazard mitigation public-information strategy that meets the needs of all planning partners.				
All Hazards	Humboldt County, Planning Partners	Cost sharing from the Partnership General fund allocations Cost sharing with stakeholders	Short term, Ongoing	6, 7, 8, 12
CW-3 —Coordinate updates to land use and building regulations as they pertain to reducing the impacts of natural hazards, to seek a regulatory cohesiveness within the planning area. This can be accomplished via a commitment from all planning partners to involve each other in their adoption processes, by seeking input and comment during the course of regulatory updates or general planning.				
All Hazards	Governing body of each eligible planning partner.	General funds	Short term, Ongoing	1, 3, 11, 12
CW-4 —Sponsor and maintain a natural hazards informational website to include the following types of information:				
<ul style="list-style-type: none"> • Hazard-specific information such as GIS layers, private property mitigation alternatives, important facts on risk and vulnerability • Pre- and post-disaster information such as notices of grant funding availability • Links to Planning Partners' pages, FEMA, Red Cross, NOAA, USGS and the National Weather Service. • Hazard mitigation plan information such as progress reports, mitigation success stories, update strategies, Steering Committee meetings. 				
All Hazards	Humboldt County	General fund	Short term, Ongoing	6, 7, 8, 12
CW-5 —Maintain the Hazard Mitigation Plan Steering Committee as a viable body over time to monitor progress of the plan, provide technical assistance to Planning Partners and oversee the update of the plan according to schedule. This body will continue to operate under the ground rules established at its inception.				
All Hazards	Humboldt County	Existing, ongoing programs	Short term, Ongoing	All
CW-6 —Amend or enhance the Humboldt County Operational Area Hazard Mitigation Plan as well as the general Plans for each municipality as needed to comply with state or federal mandates (i.e., CA. Assembly Bill # 2140) as guidance for compliance with these programs become available.				
All Hazards	Humboldt County, each municipal planning partner	General funds	Short term, Ongoing	All
CW-7 —Work with the Humboldt County Assessor to begin the capture of general building stock information such as area, date of construction and foundation type, to better support future risk assessments.				
All Hazards	Humboldt County	General fund	Long term, depending on funding	6, 7, 8

CHAPTER 9. CITY OF RIO DELL UPDATE ANNEX

9.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

City Manager
City of Rio Dell
675 Wildwood Ave,
Rio Dell, CA 95562
Telephone: (707) 764-3532
e-mail Address: cm@riodellcity.com

Alternate Point of Contact

Community Development Director
City of Rio Dell
675 Wildwood Ave,
Rio Dell, CA 95562
Telephone: (707) 764-3532
e-mail Address: kcaldwell@riodellcity.com

9.2 JURISDICTION PROFILE

The following is a summary of key information about the jurisdiction and its history:

- **Date of Incorporation**—February 1965. Rio Dell was incorporated as a General Law city. The City was not granted a separate charter, but operates under the general laws of the State of California.
- **Current Population**—3,363 as of January 1, 2013.
- **Population Growth**—Based on data available from the State of California Department of Finance, the population of Rio Dell grew by 5.9 percent between 2000 and 2013. Population growth was 0.4 percent from 2012 to 2013.
- **Location and Description**—The City of Rio Dell is located in Humboldt County, California, approximately 25 miles south of Eureka, along Highway 101 within the Eel River Valley. The city is approximately 2.4 square miles and is nestled within the redwood forests of Northern California.
- **Brief History**—In the 1870s Lorenzo Painter settled in what is now known as Rio Dell. He started a friendly farming community, which he named Eagle Prairie. Over the years three separate small community areas evolved that was popularly named Wildwood (which is now downtown Rio Dell, Belleview (now a major area and avenue northwest of the center of town) and Eagle Prairie (now the Pacific Avenue area west of the center of town). The City was incorporated in 1965 and the three areas combined into the single City of Rio Dell.

The City, like most of the region, was intertwined with the timber industry. Tough economic times fell upon the area when in the 1970s a highway bypass was built around the City. In recent years the City has been pursuing strategies to revitalize the economy and the community. Rio Dell has also recently completed updates to several elements of the general plan.

- **Climate**—Rio Dell enjoys a mild climate with average summertime temperatures of 67 degrees. During winter months temperatures tend to be in the 40s. Annual average precipitation is about 48 inches. The wettest month of the year is typically January, with an average rainfall of 8.45 inches. There tends to be less precipitation during the summer months.

- **Governing Body Format**—Rio Dell has a City Council/City Manager form of government. The City Council sets policy while the City Manager carries out the day-to-day business of the City. The Mayor is selected by the City Council and serves as the presiding officer at city council meetings and as the official head of the City for legislative and ceremonial purposes.
- **Development Trends**—In recent year the City of Rio Dell has invested in efforts toward revitalization. One such project involved substantial new development in the historic downtown area. Approximately 96 new, single-family construction permits were applied for between 2000 and 2011. Additionally, the City has taken on several infrastructure improvement projects including significant upgrades to the water and wastewater utilities and street re-paving and landscaping.

Pursuant with California state law, the City of Rio Dell engages in long-range planning. Several updates to elements of the general plan have been made in recent years. The Conservation, Conservation and Circulation elements were updated in 2013, the Land Use element in 2008 and the Housing element in 2011. The Noise element was last updated in 2001 and the Safety Element was adopted in 1975.

9.3 ENERGY PROFILE

9.3.1 Local Energy Supply

Energy for government operations is provided as follows:

- Electricity—Pacific Gas & Electric Company (PG&E)
- Propane—Propane for city operations is obtained from Sequoia Gas
- Liquid Fuel—Renner Petroleum (gas/diesel); Shell Oil (gas/diesel; Moore Fuel (gas/diesel)
- Natural Gas—Pacific Gas & Electric Company (PG&E)

9.3.2 Local Energy Demand

Government operations use five primary energy sources: electricity, natural gas, wood, propane, and solar. Each is described below (no energy demand information is provided for transportation fuels).

Electricity

Rio Dell consumed 16,165,021 kWh of electricity in 2012 as compared to 11,137,153 kWh in 2005. This amounts to a 45.1% increase over that time span. The year-over-year change was an increase of 0.1%.

Non-Residential Sector

Sixty-five percent of electrical consumption was derived from the non-residential sector in 2012. There were six segments that comprised about 80% of this consumption: retail, hospitality, water & wastewater treatment, schools, offices, and manufacturing & transportation.

Residential Sector

Thirty-eight percent of electrical consumption was from the residential sector. The average electrical use per single-family and multi-family residential customer was 644 and 296 kWh per month respectively. Electrical usage has gone up by 56.7% since 2005.

Natural Gas

Rio Dell consumed 663,892 therms of natural gas in 2012 as compared to 612,531 therms in 2005, an 8.4% increase. Between 2011 and 2012, there was a 3.2% decrease in consumption.

Non Residential Sector

Thirty-five percent of non-residential energy consumption was derived from natural gas during 2012. There were six segments that comprised almost 80% of non-residential consumption led by retail, hospitality, water & wastewater treatment, schools, offices, and manufacturing & transportation. Natural gas usage has decreased by 7.4% since 2005.

Residential Sector

Sixty-two percent of residential energy consumption was derived from natural gas during 2012. The average natural gas use per single-family and multi-family residential customer was 39 and 30 therms per month respectively. Natural gas usage has increased by 8.5% since 2005.

Wood

Rio Dell consumes wood in the residential sector, primarily for heating. On average, there are approximately 240 households using a total of approximately 600 cords of wood per year.

Propane

Rio Dell consumes propane in the residential sector, primarily for heating and cooking. About 120 households use propane gas for an average total of 109,000 gallons per year.

Solar

As of 2012, there were 2 kW of solar electricity being generated from 1 residential site that is connected to the PG&E grid. The City of Rio Dell is planning for a major remodel of the existing City Hall, which will likely include a PV solar system generating 40.0 kw for City Hall.

9.3.3 Agreements and Contracts

The City of Rio Dell is in the process of developing an agreement with the owner of the Shell Oil Service Station on Wildwood Ave, Rio Dell, Ca. for first priority use of fuel at the business in the event of a power outage or natural disaster. This priority extends to the Rio Dell City Police Department, Public Works Department for vehicles and diesel generators to power the City's water and wastewater facilities, and to the Rio Dell Volunteer Fire District.

9.3.4 Community Key Assets Energy Profile

The City of Rio Dell has identified 12 key assets for its energy profile:

- City Corporation Yard
- Water Infiltration Gallery
- Dinsmore Water Pumps
- City Police Department/City Hall
- Water Plant
- Wastewater Sludge Dryer
- Lift Station #2
- Lift Station #1
- Metropolitan Rd. S/O Hwy I01
- City Park, Davis Street
- Sewage treatment Plant, Hilltop Drive
- Water pumping station, Dinsmore

Table 9-1 summarizes the energy profile for each key asset.

**TABLE 9-1.
COMMUNITY KEY ASSETS AND ENERGY PROFILE**

Essential Service	Primary Energy Supply			Backup Energy Supply						
	Service Provider	Energy Type	Form of Agreement	Emergency Generator Brand Model	Peak Power (kW)	Continuous Power (kW, hp)	Fuel type	Gallons of storage	Storage on Site?	Portable
Key Asset #1: City Corporation Yard										
Public Works		Electricity					Diesel	500		
Key Asset #2: Water Infiltration Gallery										
—		Electricity					Diesel			
Key Asset #3: Dinsmore Water Pumps										
Drinking Water		Electricity								
Key Asset #4: City Police Department/City Hall										
Emergency Services/City Management		Electricity								
Key Asset #5: Water Plant										
Drinking Water		Electricity					Diesel			
Key Asset #6: Wastewater Sludge Dryer										
Wastewater Treatment		Natural Gas					Diesel			
Key Asset #7: Lift Station #2										
—		Electricity								
Key Asset #8: Lift Station #1										
—		Electricity								
Key Asset #9: Metropolitan Rd. S/O Hwy 101										
—		Electricity								
Key Asset #10: City Park, Davis Street										
—		Electricity								
Key Asset #11: Sewage treatment Plant, Hilltop Drive										
Wastewater Treatment		Electricity					Diesel			
Key Asset #12: Water pumping station, Dinsmore										
Drinking Water		Electricity								

9.3.5 Key Asset Energy Consumption and Backup Generator Analysis

Information on the energy requirements of the identified key assets is needed in order to ensure that any existing or new back-up generation is capable of meeting the required electrical load and that fuel storage for the backup generators is adequate to sustain operations of key assets for a minimum of 72 hours in the event of an energy disruption. Table 9-2 shows key asset energy consumption and results of a generator/fuel backup analysis.

TABLE 9-2. KEY ASSET ENERGY CONSUMPTION AND BACKUP GENERATOR ANALYSIS								
Electricity Use (kWh)		Highest Monthly Fuel Use (gallons)				Generator Information		
Highest Monthly	Peak	Gasoline	Diesel	Kerosene	Propane	Peak Output (kW)	Fuel Type	On-Site Storage (gallons)
Key Asset #1: City Corporation Yard								
			508.8				Diesel	500
<i>Generator Capacity Analysis:</i> _____								
Key Asset #2: Water Infiltration Gallery								
8636	29							
<i>Generator Capacity Analysis:</i> _____								
Key Asset #3: Dinsmore Water Pumps								
1782	11							
<i>Generator Capacity Analysis:</i> _____								
Key Asset #4: City Police Department/City Hall								
3704	14							
<i>Generator Capacity Analysis:</i> _____								
Key Asset #5: Water Plant								
63441	172							
<i>Generator Capacity Analysis:</i> _____								
Key Asset #6: Wastewater Sludge Dryer								
32,000								
<i>Generator Capacity Analysis:</i> _____								
Key Asset #7: Lift Station #2								
598	7							
<i>Generator Capacity Analysis:</i> _____								
Key Asset #8: Lift Station #1								
1077	9							
<i>Generator Capacity Analysis:</i> _____								
Key Asset #9: Metropolitan Rd. S/O Hwy 101								
108								
<i>Generator Capacity Analysis:</i> _____								

**TABLE 9-2.
KEY ASSET ENERGY CONSUMPTION AND BACKUP GENERATOR ANALYSIS**

Electricity Use (kWh)		Highest Monthly Fuel Use (gallons)				Generator Information		
Highest Monthly	Peak	Gasoline	Diesel	Kerosene	Propane	Peak Output (kW)	Fuel Type	On-Site Storage (gallons)
Key Asset #10: City Park, Davis Street								
303								
<i>Generator Capacity Analysis:</i> _____								
Key Asset #11: Sewage treatment Plant, Hilltop Drive								
35275 107								
<i>Generator Capacity Analysis:</i> _____								
Key Asset #12: Water pumping station, Dinsmore								
56								
<i>Generator Capacity Analysis:</i> _____								

9.4 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

TABLE 9-3. NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Earthquake	N/A	11/8/1980	Not Available
Severe Weather / Flood	N/A	1/18/1981	Not Available
Severe Weather / Flood	N/A	12/19/1981	Not Available
Severe Weather / Flood	N/A	3/31/1982	Not Available
Severe Weather / Flood	DR-677	01/25/1983	\$3.82 million countywide
Severe Weather / Flood	N/A	12/25/1983	Not Available
Severe Weather / Flood	DR-758	02/21/1986	\$5 million countywide
Earthquake	DR-943	04/04/1992	\$10 million
Severe Weather / Flood	N/A	12/31/1992	Not Available
Severe Weather / Flood	N/A	1/20/1993	Not Available
Earthquake	N/A	12/26/1994	Not Available
Severe Weather / Flood	DR-1044	01/09/1995	\$15 million countywide
Severe Weather / Flood	DR-1046	03/12/1995	\$1.3 million countywide
Severe Weather / Flood	N/A	12/11/1995	Not Available
Severe Weather / Flood	N/A	12/29/1995	Not Available
Severe Weather / Flood	N/A	12/8/1996	Not Available
Severe Weather / Flood	DR-1155	01/04/1997	\$35 million countywide
Severe Weather / Flood	DR-1203	02/09/1998	Over \$6 million countywide
Severe Weather / Flood	N/A	11/21/1998	Not Available
Severe Weather / Flood	N/A	12/27/2002	Not Available
Severe Weather / Flood	DR-1628	12/31/2005	\$413,000 \$20,208,206 for County
Earthquake	N/A	1/9/2010	Not Available

Table 9-3 lists all past occurrences of natural hazards within the jurisdiction. Repetitive loss records are as follows:

- Number of FEMA Identified Repetitive Flood Loss Properties: 0
- Number of FEMA Identified Severe Repetitive Loss Properties: 0
- Number of repetitive flood loss/severe repetitive loss properties that have been mitigated: 0

9.5 HAZARD RISK RANKING

TABLE 9-4. HAZARD RISK RANKING		
Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Earthquake	54
2	Severe Storm	54
3	Flood	42
4	Drought	42
5	Landslide	21
6	Wildland Fire	18
7	Dam Failure	14
8	Volcano (Ash Fall)	5
9	Tsunami	0

Table 9-4 presents the ranking of the hazards of concern.

9.6 CAPABILITY ASSESSMENT

9.6.1 Legal and Regulatory Capability

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 9-5.

TABLE 9-5. LEGAL AND REGULATORY CAPABILITY				
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated
Codes, Ordinances & Requirements				
Building Code <i>Comments:</i> Ord. #202 Adopted Jan. 1990	Y	N	Y	Y
Zoning <i>Comments:</i> Ord. #252 Adopted Nov. 2004	Y	Y	Y	Y
Subdivisions <i>Comments:</i> Ord. #235 Adopted Feb. 1999	Y	Y	Y	Y
Stormwater Management	N	Y	Y	N
Post Disaster Recovery	N	N	N	N
Real Estate Disclosure <i>Comments:</i> CA State Civil Code 1102 requires full disclosure on Natural Hazard Exposure of the sale/re-sale of any and all real property.	N	N	Y	Y
Growth Management <i>Comments:</i> See General Plan	Y	N	N	N
Site Plan Review	Y	N	N	N
Public Health and Safety	Y	N	N	N
Environmental Protection	N	N	N	N
Energy Code	N	N	N	N
Planning Documents				
General or Comprehensive Plan <i>Comments:</i> Oct 2008	Y	Y	Y	Y
Floodplain or Basin Plan	N	N	Y	N
Stormwater Plan	N	Y	Y	N
Capital Improvement Plan <i>Comments:</i> Streets, water & wastewater facilities	Y	N	N	Y

**TABLE 9-5.
LEGAL AND REGULATORY CAPABILITY**

	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated
Habitat Conservation Plan	N	N	N	N
Economic Development Plan <i>Comments:</i> Adopted 2008	N	N	N	Y
Shoreline Management Plan	N	Y	Y	N
Community Wildfire Protection Plan	N	N	N	N
General Plan Energy Conservation Element or Energy Specific Plan <i>Comments:</i> Adopted 2013	Y	N	N	Y
Climate Action Plan or Climate Adaptation Strategy	N	N	N	N
Response/Recovery Planning				
Comprehensive Emergency Management Plan	N	N	N	N
Threat and Hazard Identification and Risk Assessment	N	N	N	N
Terrorism Plan	N	N	N	N
Post-Disaster Recovery Plan	N	N	N	N
Continuity of Operations Plan	N	N	N	N
Public Health Plans	N	N	N	N

9.6.2 Administrative and Technical Capability

TABLE 9-6. ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Y	K. Caldwell, Community Development Director
Engineers or professionals trained in building or infrastructure construction practices	Y	Professional Consultants
Planners or engineers with an understanding of natural hazards	Y	Professional Consultants
Planners or engineers with an understanding of energy resilience or alternative energy technology	Y	Professional Consultants
Staff with training in benefit/cost analysis	Y	Professional Consultants
Surveyors	Y	Professional Consultants
Personnel skilled or trained in GIS applications	Y	K. Caldwell, Community Development Director
Scientist familiar with natural hazards in local area	Y	Professional Consultants
Emergency manager	Y	Graham Hill, Police Chief
Grant writers	Y	Professional Consultants

The assessment of the jurisdiction's administrative and technical capabilities is presented in Table 9-6.

9.6.3 Fiscal Capability

TABLE 9-7. FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Y
Capital Improvements Project Funding	Y
Authority to Levy Taxes for Specific Purposes	Y
User Fees for Water, Sewer, Gas or Electric Service	Y
Incur Debt through General Obligation Bonds	Y
Incur Debt through Special Tax Bonds	Y
Incur Debt through Private Activity Bonds	Y
Withhold Public Expenditures in Hazard-Prone Areas	Y
State Sponsored Grant Programs	Y
Development Impact Fees for Homebuyers or Developers	Y
Other	Y

The assessment of the jurisdiction's fiscal capabilities is presented in Table 9-7.

9.6.4 National Flood Insurance Program Compliance

TABLE 9-8. NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your community?	Community Development Department
Who is your community's floodplain administrator (department/position)?	Karen Dunham, City Clerk
Do you have any certified floodplain managers on staff in your community?	No
What is the date of adoption of your flood damage prevention ordinance?	1999
When was the most recent community assistance visit or community assistance contact?	2009
To the best of your knowledge, does your community have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk in your community? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No

Information on the community's National Flood Insurance Program (NFIP) compliance is presented in Table 9-8.

9.6.5 Energy Resilience Capability

TABLE 9-9. ENERGY RESILIENCE CAPABILITIES	
Does your community have an Energy Assurance Plan coordinator? If so, who (department/position)?	Jim Stretch, City Manager
Have you performed an energy assurance gap analysis for your community?	No
Have you completed a vulnerability assessment of power sources to each key asset?	No
Do you have a contingency plan for providing energy to your community's key assets during an energy disruption?	No
Are emergency backup generators tested on a regular basis?	Yes
Are multiple persons trained in the operation and maintenance of emergency backup generators?	Yes
Have you established a working relationship with your community's energy service providers?	Yes
Have you explored alternative energy technologies (wind, solar, micro-grid, etc.) to support community energy resiliency?	Yes
Have you conducted an energy efficiency analysis of jurisdiction owned buildings?	Yes

Energy resiliency capabilities are presented in Table 9-9.

9.6.6 Community Mitigation Program Classifications

TABLE 9-10. COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	No	--	--
Building Code Effectiveness Grading Schedule	No	99/99	--
Public Protection	Yes	7/9	--
Storm Ready	No	--	--
Firewise	No	--	--
Tsunami Ready (if applicable)	No	--	--

Classifications under various community mitigation programs are presented in Table 9-10.

9.7 HAZARD MITIGATION ACTION PLAN

Table 9-11 lists the initiatives that make up the jurisdiction's hazard mitigation plan.

TABLE 9-11. HAZARD MITIGATION ACTION PLAN MATRIX							
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
Initiative #RD-1—Improve Wastewater Collection System Mains, Laterals, and Manholes.							
New & Existing	Earthquake, Flood, Severe Storm	O-1, O-2	Public Works	High	General Fund, PDM Grants	Long Term	Y
Initiative #RD-2—Maintain and Upgrade Wastewater Lift Stations.							
New & Existing	Earthquake, Flood, Severe Storm	O-1, O-2	Public Works	Medium	General Fund, PDM Grants	Long Term	Y
Initiative #RD-3—Painter Street to Highway 101 Drainage Ditch Repair.							
New & Existing	Flood, Severe Storm	O-1, O-2, O-3	Public Works	Medium	General Fund, PDM Grants	Long Term	Y
Initiative #RD-4—Center Street to Painter Street Culvert Improvements.							
New & Existing	Flood, Severe Storm	O-1, O-2, O-3	Public Works	Medium	General Fund, PDM Grants	Long Term	Y
Initiative #RD-5—City Hall Seismic Retrofit.							
New & Existing	Earthquake	O-1, O-2, O-3, O-4, O-5	Public Works	High	General Fund, PDM & HMGP Grants	Long Term	Y
Initiative #RD-6—Fireman's Hall Seismic Retrofit.							
New & Existing	Earthquake	O-1, O-2, O-3, O-4, O-5	Public Works	High	General Fund, PDM & HMGP Grants	Long Term	Y
Initiative #RD-7—City Standby Power Generation Capabilities.							
New & Existing	All Hazards	O-1, O-2, O-4	Public Works	High	General Fund	Long Term	Y
Initiative #RD-8—Fire Sprinkler Installation at City Hall and Fireman's Hall.							
New & Existing	Earthquake, Wildland Fire	O-1, O-2, O-3, O-4, O-5	Public Works	Medium	General Fund, PDM & HMGP Grants	Long Term	Y
Initiative #RD-9—Construct Retaining Wall on Road to Dinsmore.							
New & Existing	Earthquake, Severe Storm, Landslide	O-1, O-2, O-3, O-4, O-5, O-9	Public Works	Medium	General Fund, Street Fund, PDM Grants	Long Term	Y

**TABLE 9-11.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
Initiative #RD-10 —Designate, prepare and announce Emergency Assembly Points throughout the City.							
New & Existing	All Hazards	O-5, O-6, O-7	Public Works	Medium	General Fund	Short Term	Y
Initiative #RD-11 —Adopt a Long-term Capital Improvement Plan.							
New & Existing	All Hazards	O-1, O-2, O-3, O-4, O-5, O-6, O-7, O-9	Public Works	Low	General Fund	Short Term	Y
Initiative #RD-12 —Improve hillside stability in landslide-prone areas.							
New & Existing	Earthquake, Severe Storm, Landslide	O-1, O-2, O-3, O-4, O-5, O-9	Public Works	Medium	General Fund, PDM Grants	Long Term	Y
Initiative #RD-13 —Prepare a Post Disaster Recovery Plan.							
New & Existing	All Hazards	O-1, O-4, O-5, O-6, O-12	Public Works	Low	General Fund	Short Term	Y
Initiative #RD-14 —Install Emergency water interties with Scotia.							
New & Existing	Earthquake, Severe Storm, Drought	O-1, O-2, O-3, O-12	Public Works	High	General Fund, Water Fund, PDM Grants	Long Term	Y
Initiative #RD-15 —Work with the National Oceanic and Atmospheric Association to attain the certifications of Storm Ready and Tsunami Ready.							
New & Existing	Tsunami, Severe Storm	O-3, O-4, O-5, O-6, O-7, O-8	Public Works	Medium	General Fund	Short Term	Y
Initiative #RD-16 —Improve alternative communication capabilities throughout the City, including acquisition of and licensing for HAM radios, satellite telephones, mobile backup dispatch devices and other communication devices.							
New & Existing	All Hazards	O-1, O-4, O-5, O-12	Public Works	Medium	General Fund	Short Term	Y
Initiative #RD-17 —Adopt an updated Emergency Response Plan.							
New & Existing	All Hazards	O-1, O-2, O-4, O-5	Public Works	Low	General Fund	Short Term	Y
Initiative #RD-18 —Update City land use code for seismic setbacks/structural requirements and hillside development standards.							
New & Existing	Earthquake, Landslide	O-2, O-3, O-10, O-11	Public Works	Low	General Fund	Short Term	Y

**TABLE 9-11.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
Initiative #RD-19 —Promote the formation of Community Emergency Response Teams (CERTs) and Neighborhood and Business Emergency Services Teams (NESTS and BESTs) throughout Rio Dell.							
New & Existing	All Hazards	O-4, O-5, O-6, O-8	Public Works	Medium	General Fund	Short Term	Y
Initiative #RD-20 —Update floodplain mapping throughout the City and continue to maintain compliance and good standing under the National Flood Insurance Program. This will be accomplished through the implementation of floodplain management programs that, at a minimum, will meet the minimum requirements of the NFIP, which include the following: <ul style="list-style-type: none"> • Enforcement of the adopted flood damage prevention ordinance, • Participating in floodplain identification and mapping updates, and • Providing public assistance/information on floodplain requirements and impacts 							
New & Existing	Flood, Severe Storm	O-2, O-3, O-8, O-9	Public Works	Low	General Fund	Short term	Y
Initiative #RD-21 —Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for City staff.							
New & Existing	All Hazards	O-4, O-5	Public Works	Low	General Fund	Short Term	Y
Initiative #RD-22 —Support and participate in the Redwood Coast Tsunami Work Group and other hazard mitigation groups in the region.							
New & Existing	All Hazards	O-6, O-7, O-8	Public Works	Low	General Fund	Short Term	Y
Initiative #RD-23 —Develop Focused Storm Drainage Facility Plan.							
New & Existing	Severe Storm, Flood	O-2, O-3, O-6, O-9	Public Works	Medium	General Fund, CDBG	Short Term	Y
Initiative #RD-24 —Increase fuel storage capacity and supply within the City, including at Wastewater Treatment and Water Facilities.							
New & Existing	All Hazards	O-1, O-2, O-4	Public Works	Medium	General Fund, Water Fund, Wastewater Fund	Short Term	N
Initiative #RD-25 —Consider obtaining formal agreement with Shell to give the City and Fire District priority fueling. Coordinate with the Fire District to determine the station's operational capacity in event of an energy disruption.							
New & Existing	All Hazards	O-1, O-4	Public Works	Low	General Fund	Short Term	N
Initiative #RD-26 —Determine whether any agreements exist with Scotia for the sharing of fuel and water in the event of an emergency.							
New & Existing	All Hazards	O-12	Public Works	Low	General Fund	Short Term	N

**TABLE 9-11.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
Initiative #RD-27 —Maintain and update the City's Energy Assurance Plan and implement Energy Assurance Plan actions and projects, including requesting information (energy use, backup generator make/model/size, fuel storage) from key assets, determining energy assurance gaps, and evaluating Key Asset requirements to function in a longer-term (2 week) energy disruption.							
New & Existing	All Hazards	O-1, O-2, O-4	Public Works	Medium	General Fund	Long Term	N
Initiative #RD-28 —Determine City water supply in event of long-term energy disruption. Set priority list for water distribution.							
New & Existing	All Hazards	O-1, O-2, O-3	Public Works	Medium	General Fund, Water Fund	Long Term	N
Initiative #RD-29 —Determine refrigeration capacity of local markets and evaluate requirements to maintain functionality in event of energy disruption.							
New & Existing	All Hazards	O-3	Public Works	Medium	General Fund	Long Term	N
Initiative #RD-30 —Determine fuel tank size and operational costs of new infiltration gallery backup generator.							
New & Existing	All Hazards	O-1, O-2	Public Works	Low	General Fund, Water Fund	Short Term	N
Initiative #RD-31 —Coordinate with the Fire District to determine backup fuel supply adequacy and obtain increased storage if necessary.							
New & Existing	All Hazards	O-2, O-4, O-8	Public Works	Medium	General Fund	Short Term	N
Initiative #RD-32 —Determine and obtain a properly sized backup power supply to power Police Department communications system.							
New & Existing	All Hazards	O-2, O-4	Public Works	Medium	General Fund	Short Term	N
Initiative #RD-33 —Coordinate with the County and Ferndale to stabilize Blue Slide Road hillside and road surface from Ferndale to Rio Dell.							
New & Existing	Landslide	O-3, O-8, O-9, O-12	County, Ferndale, Public Works	High	General Fund, PDM Grants	Short term	N
Initiative #RD-34 —Coordinate with County to stabilize landslide into Eel River upstream of City's fresh water infiltration gallery.							
New & Existing	Landslide	O-3, O-8, O-9, O-12	County, Ferndale, Public Works	High	General Fund, PDM Grants	Short term	N

9.8 PRIORITY OF RECOMMENDED INITIATIVES

Table 9-12 identifies the priority for each initiative.

TABLE 9-12. MITIGATION STRATEGY PRIORITY SCHEDULE							
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
RD-1	2	High	High	Yes	Yes	No	High
RD-2	2	Medium	Medium	Yes	Yes	No	High
RD-3	3	High	Medium	Yes	Yes	No	High
RD-4	3	High	Medium	Yes	Yes	No	High
RD-5	5	High	High	Yes	Yes	No	High
RD-6	5	High	High	Yes	Yes	No	High
RD-7	3	High	High	Yes	No	No	Low
RD-8	5	High	Medium	Yes	Yes	No	High
RD-9	6	High	Medium	Yes	Yes	No	High
RD-10	3	High	Medium	Yes	No	No	Medium
RD-11	8	Medium	Low	Yes	No	Yes	High
RD-12	6	High	Medium	Yes	Yes	No	High
RD-13	5	Medium	Low	Yes	No	Yes	High
RD-14	4	High	High	Yes	Yes	No	High
RD-15	6	Medium	Medium	Yes	No	No	Medium
RD-16	4	High	Medium	Yes	No	No	Medium
RD-17	4	Medium	Low	Yes	No	Yes	High
RD-18	5	Medium	Low	Yes	No	Yes	High
RD-19	4	Medium	Medium	Yes	No	No	Medium
RD-20	4	Medium	Low	Yes	No	No	High
RD-21	2	High	Low	Yes	No	Yes	High
RD-22	3	Medium	Low	Yes	No	Yes	High
RD-23	4	Medium	Medium	Yes	Yes	No	High
RD-24	3	High	Medium	Yes	No	No	Medium
RD-25	2	Medium	Low	Yes	No	Yes	High
RD-26	1	Low	Low	Yes	No	Yes	High
RD-27	3	Medium	Medium	Yes	No	No	Low
RD-28	3	Medium	Medium	Yes	No	No	Low
RD-29	1	Medium	Medium	Yes	No	No	Low
RD-30	2	Medium	Low	Yes	No	Yes	High

**TABLE 9-12.
MITIGATION STRATEGY PRIORITY SCHEDULE**

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
RD-31	3	High	Medium	Yes	No	No	Medium
RD-32	2	High	Medium	Yes	No	No	Medium
RD-33	4	High	High	Yes	Yes	No	High
RD-34	4	High	High	Yes	Yes	No	High

a. See Chapter 1 for definitions of high, medium and low priorities.

9.9 ANALYSIS OF RECOMMENDED INITIATIVES

Table 9-13 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

TABLE 9-13. ANALYSIS OF MITIGATION INITIATIVES						
Hazard Type	Initiative Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Dam Failure	RD-11, RD-13		RD-10, RD-19	RD-28	RD-7, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-14
Drought	RD-10, RD-11, RD-13		RD-10, RD-19	RD-28	RD-14	RD-14
Earthquake	RD-10, RD-11, RD-13, RD-18	RD-1, RD-2, RD-3, RD-4, RD-5, RD-6, RD-8	RD-10, RD-19	RD-9, RD-12, RD-33, RD-34	RD-1, RD-2, RD-3, RD-4, RD-5, RD-6, RD-7, RD-8, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-9, RD-12, RD-14, RD-33, RD-34
Flood	RD-10, RD-11, RD-13, RD-20, RD-23	RD-1, RD-2, RD-3, RD-4	RD-10, RD-19, RD-20	RD-9, RD-12, RD-33, RD-34	RD-1, RD-2, RD-3, RD-4, RD-5, RD-6, RD-7, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-9, RD-12, RD-14, RD-33, RD-34
Landslide	RD-10, RD-11, RD-13, RD-18		RD-10, RD-19	RD-9, RD-12, RD-33, RD-34	RD-7, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-9, RD-12, RD-14, RD-33, RD-34

**TABLE 9-13.
ANALYSIS OF MITIGATION INITIATIVES**

Hazard Type	Initiative Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Severe Weather	RD-10, RD-11, RD-13, RD-15, RD-18, RD-23	RD-1, RD-2, RD-3, RD-4	RD-10, RD-19	RD-9, RD-12, RD-33, RD-34	RD-1, RD-2, RD-3, RD-4, RD-5, RD-6, RD-7, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-9, RD-12, RD-14, RD-33, RD-34
Tsunami	RD-10, RD-11, RD-13, RD-15, RD-22		RD-10, RD-19, RD-22		RD-7, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-14
Wildfire	RD-10, RD-11, RD-13	RD-8	RD-10, RD-19		RD-7, RD-8, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-14
Other Hazards of Concern	RD-10, RD-11, RD-13	RD-8	RD-10, RD-19		RD-7, RD-8, RD-16, RD-17, RD-19, RD-21, RD-24, RD-25, RD-26, RD-27, RD-28, RD-29, RD-30, RD-31, RD-32	RD-14

a. See Chapter 1 for description of mitigation types.

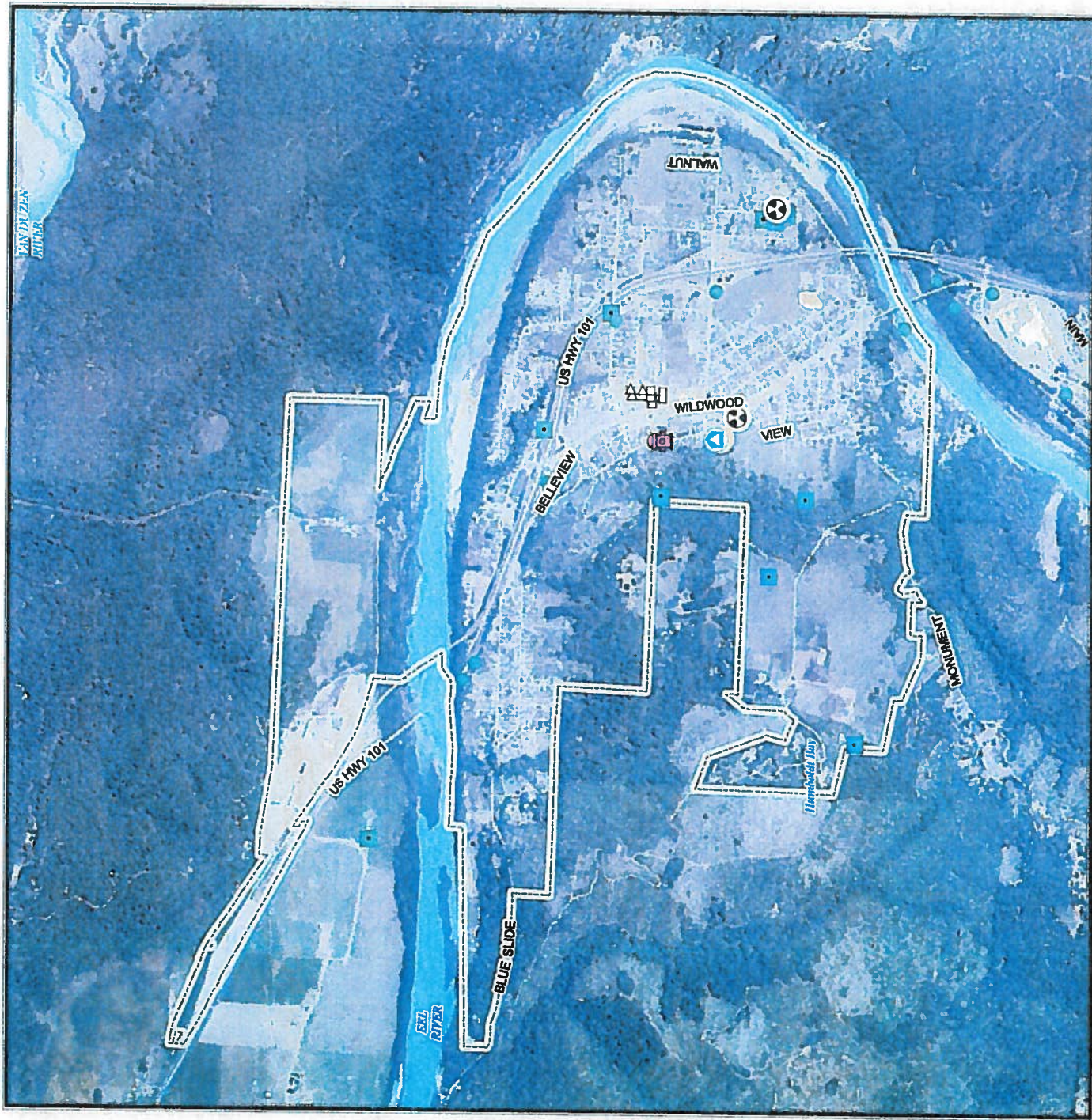
9.10 STATUS OF PREVIOUS PLAN INITIATIVES

Table 9-14 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

TABLE 9-14. PREVIOUS ACTION PLAN IMPLEMENTATION STATUS				
Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
RD-1	X			Chlorine Generation Equipment Replacement and Seismic Retrofit
RD-2	X			Upgrade Pumps at Headworks
RD-3		X		Improvements to Wastewater Collection System Mains, Laterals, and Manholes
RD-4		X		Wastewater Lift Stations Maintenance and Upgrades
RD-5	X			Install Stormproof Fuel Storage Tanks
RD-6	X			Bellevue Creek Crossing Repair
RD-7		X		Painter Street to Highway 101 Drainage Ditch Repair
RD-8		X		Center Street to Painter Street Culvert Improvements
RD-9		X		City Hall Seismic Retrofit
RD-10		X		Fireman's Hall Seismic Retrofit
RD-11		X		City Standby Power Generation Capabilities
RD-12		X		Fire Sprinkler Installation at City Hall and Fireman's Hall
RD-13		X		Construct Retaining Wall on Road to Dinsmore
RD-14	X			Elevating Wastewater Plant
RD-15		X		Designate, prepare and announce Emergency Assembly Points throughout the City.
RD-16		X		Adopt a Long-term Capital Improvement Plan
RD-17		X		Improve hillside stability in landslide-prone areas
RD-18		X		Prepare a Post Disaster Recovery Plan
RD-19		X		Install Emergency water interties between neighboring jurisdictions
RD-20		X		Work with the National Oceanic and Atmospheric Association to attain the certifications of Storm Ready and Tsunami Ready.
RD-21	X			Adopt International Building Code on January 1st, 2008
RD-22		X		Improve alternative communication capabilities throughout the City, including acquisition of and licensing for HAM radios, satellite telephones, mobile backup dispatch devices and other communication devices.
RD-23		X		Adopt an updated Emergency Response Plan

**TABLE 9-14.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
RD-24		X		Update City land use code for seismic setbacks/structural requirements and hillside development standards
RD-25		X		Promote the formation of Community Emergency Response Teams (CERTs) and Neighborhood and Business Emergency Services Teams (NESTS and BESTs) throughout Rio Dell
RD-26		X		Update floodplain mapping throughout the City, including continued participation with the National Flood Insurance Program.
RD-27		X		Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for City staff.
RD-28		X		Support and participate in the Redwood Coast Tsunami Work Group and other hazard mitigation groups in the region.
RD-29		X		Develop Focused Storm Drainage Facility Plan



CITY OF RIO DELL

Map X-X

Critical Facilities

- Airport
- Communication Facility
- Dam
- Emergency Operation Center
- Fire Facility
- Hazardous Material Facility
- Highway Bridge
- Medical Facility
- Police Facility
- Port Facility
- Potable Water Facility
- Power Facility
- School Facility
- Waste Water Facility

Critical Facilities Data Sources: Hazus MH v.2.1 database updated with Humboldt County GIS data and information from HMP partners.

Base Map Data Sources: County of Humboldt, Cal-Atlas, and U.S. Geological Survey.



CITY OF RIO DELL Map X-X

Dam Failure Inundation Areas

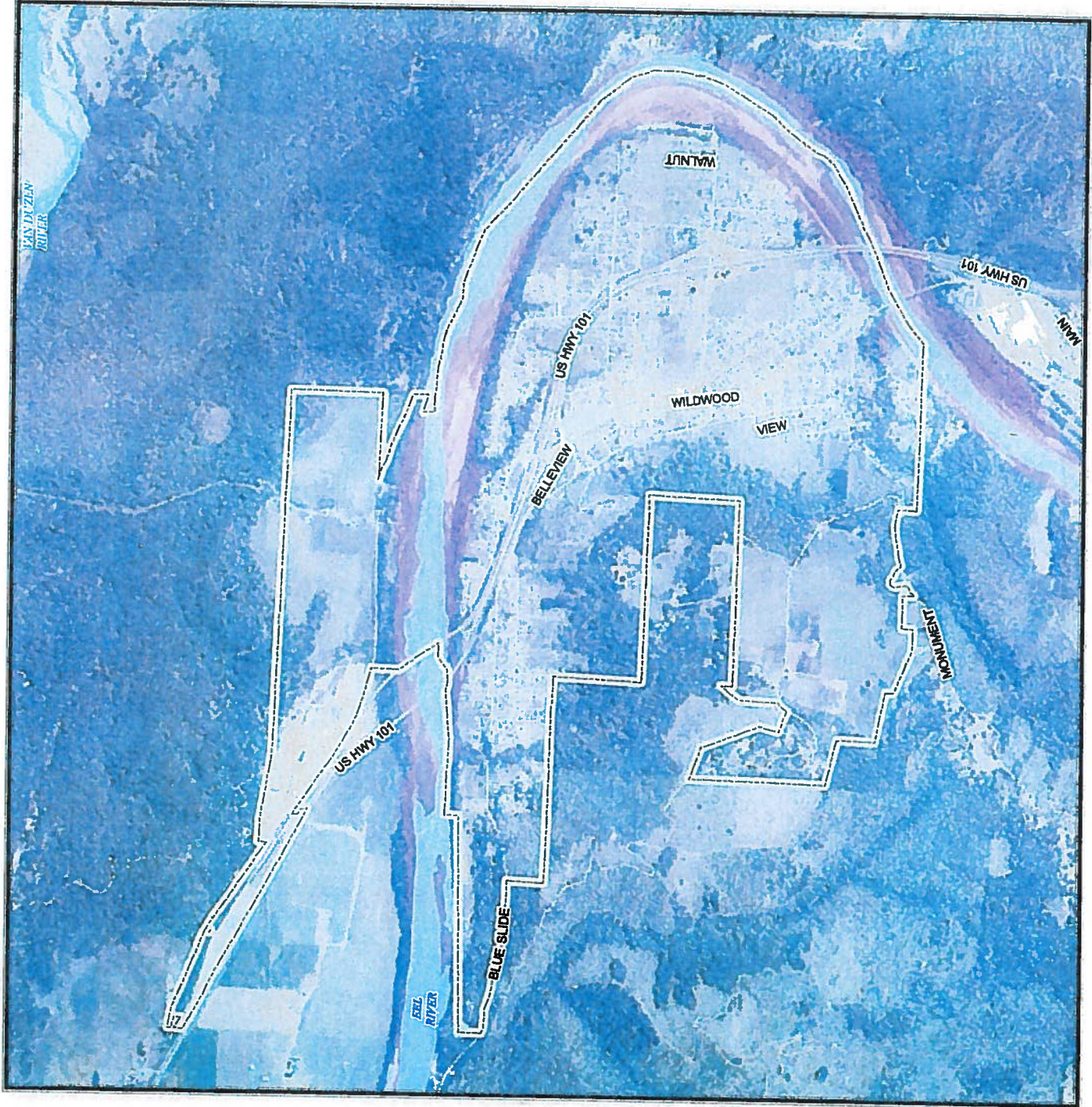
Scott Dam

Scott Dam Inundation area

Dam failure inundation area data from 2007 provided by California Emergency Management Agency Dam Safety Program.

These data only include dams meeting specific size requirements making them subject to the jurisdiction of the State of California. Dams owned by agencies of the United States government are not under the jurisdiction of this program. Inundation maps represent the best estimate of where water would flow if a dam failed completely and suddenly with a full reservoir. However, later downstream changes, such as major land contour alterations, may affect the actual inundation pathway.

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey



CITY OF RIO DELL

Map X-X

Cascadia Fault

9.0 Magnitude Scenario

Peak Ground Acceleration

Mercalli Scale, Potential Shaking

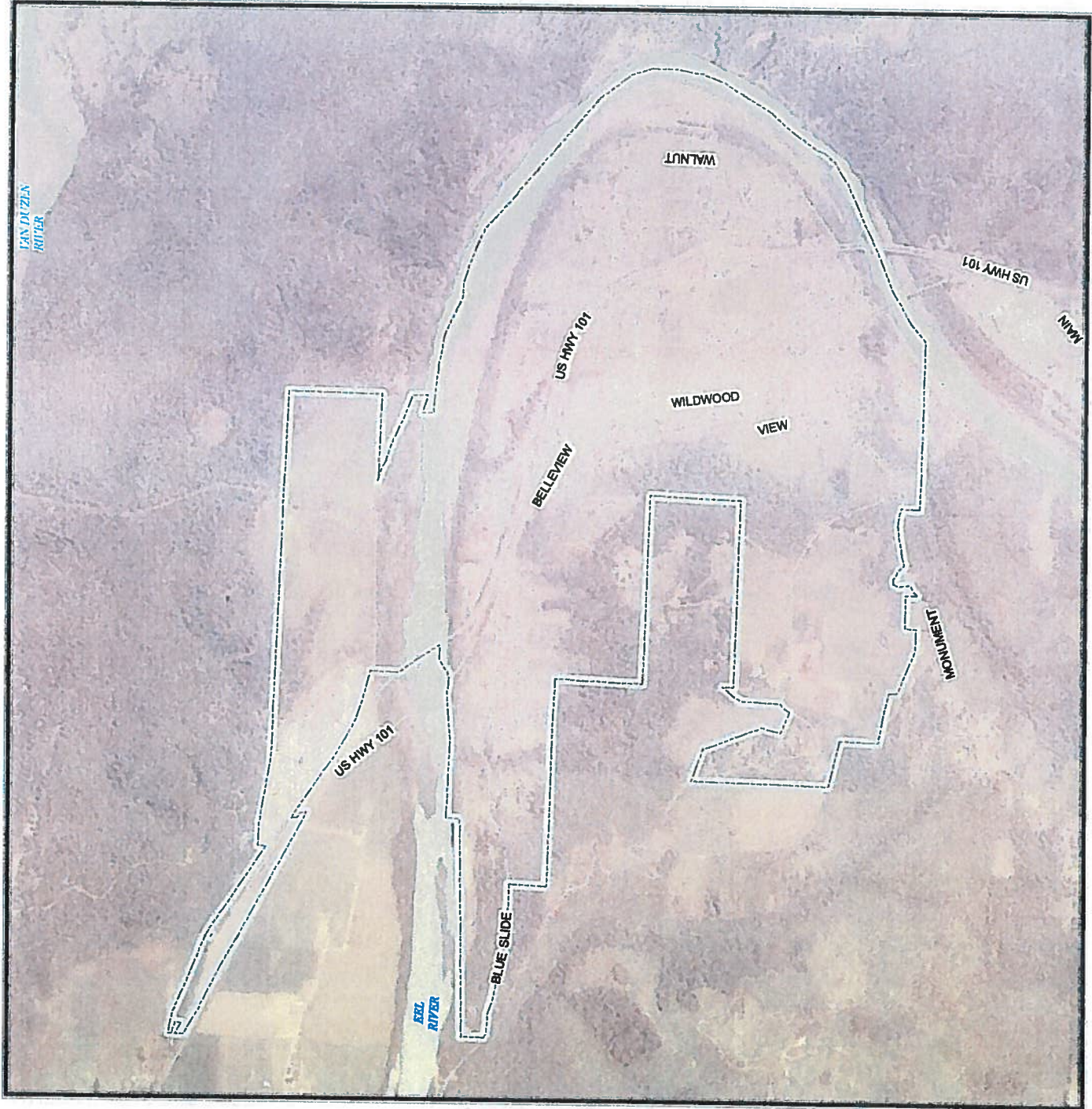
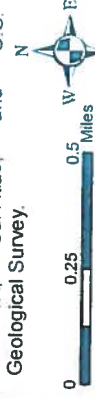
- I (Not Felt) VII (Very Strong)
- II - III (Weak) VIII (Severe)
- IV (Light) IX (Violent)
- V (Moderate) X+ (Extreme)
- VI (Strong)

Magnitude: 9.0

Epicenter: Approximately 60 miles WNW of Tillamook, OR

A ShakeMap is designed as a rapid response tool to portray the extent and variation of ground shaking throughout the affected region immediately following significant earthquakes. Ground motion and intensity maps are derived from peak ground motion amplitudes recorded on seismic sensors (accelerometers), with interpolation based on both estimated amplitudes where data are lacking, and site amplification corrections. Color-coded instrumental intensity maps are derived from empirical relations between peak ground motions and modified Mercalli intensity. Data provided by USGS, scenario generated in 2011.

Base Map Data Sources: County of Humboldt, Cal-Atlas, and U.S. Geological Survey.



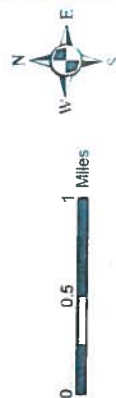
CITY OF RIO DELL Map X-X

Quaternary & Younger Earthquake Faults

- Proximate Faults
- Little Salmon Fault Zone
 - Russ Fault Zone

Earthquake fault data: Bryant, W.A. (compiler), 2005, Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, version 2.0; California Geological Survey Web Page.

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey.



CITY OF RIO DELL

Map X-X

Ferndale Fault 6.5 Magnitude Scenario

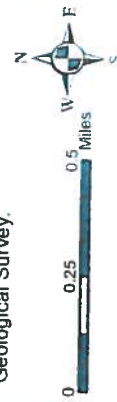
Peak Ground Acceleration
Mercalli Scale, Potential Shaking

I (Not Felt)	VII (Very Strong)
II - III (Weak)	VIII (Severe)
IV (Light)	IX (Violent)
V (Moderate)	X+ (Extreme)
VI (Strong)	

Magnitude: 6.5
Epicenter: 23.1 miles WNW of
Ferndale, CA

A ShakeMap is designed as a rapid response tool to portray the extent and variation of ground shaking throughout the affected region immediately following significant earthquakes. Ground motion and intensity maps are derived from peak ground motion amplitudes recorded on seismic sensors (accelerometers), with interpolation based on both estimated amplitudes where data are lacking, and site amplification corrections. Color-coded instrumental intensity maps are derived from empirical relations

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey.



CITY OF RIO DELLL

Map X-X

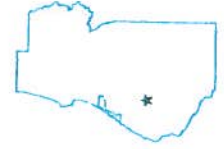
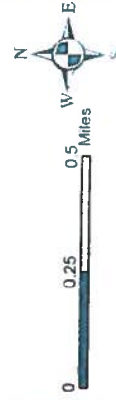
Soil Classification
National Hazards Earthquake
Reduction Program (NEHRP)

Soil Types by Site Class

- Class B - Rock
- Class C - Very Dense Soil, Soft Rock
- Class D - Stiff Soil

Soils classification data (2008) based on surficial geology published at a scale of 1:250,000 by the California Department of Conservation. The average shear wave velocity to 30 meters (Vs30) was used to develop site categories that can be used for modifying a calculated ground motion to account for site conditions.

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey.



CITY OF RIO DELL

Map X-X

Offshore Punta Gorda/
Point Mendochino

5.6 Magnitude Scenario

Peak Ground Acceleration

Mercalli Scale, Potential Shaking

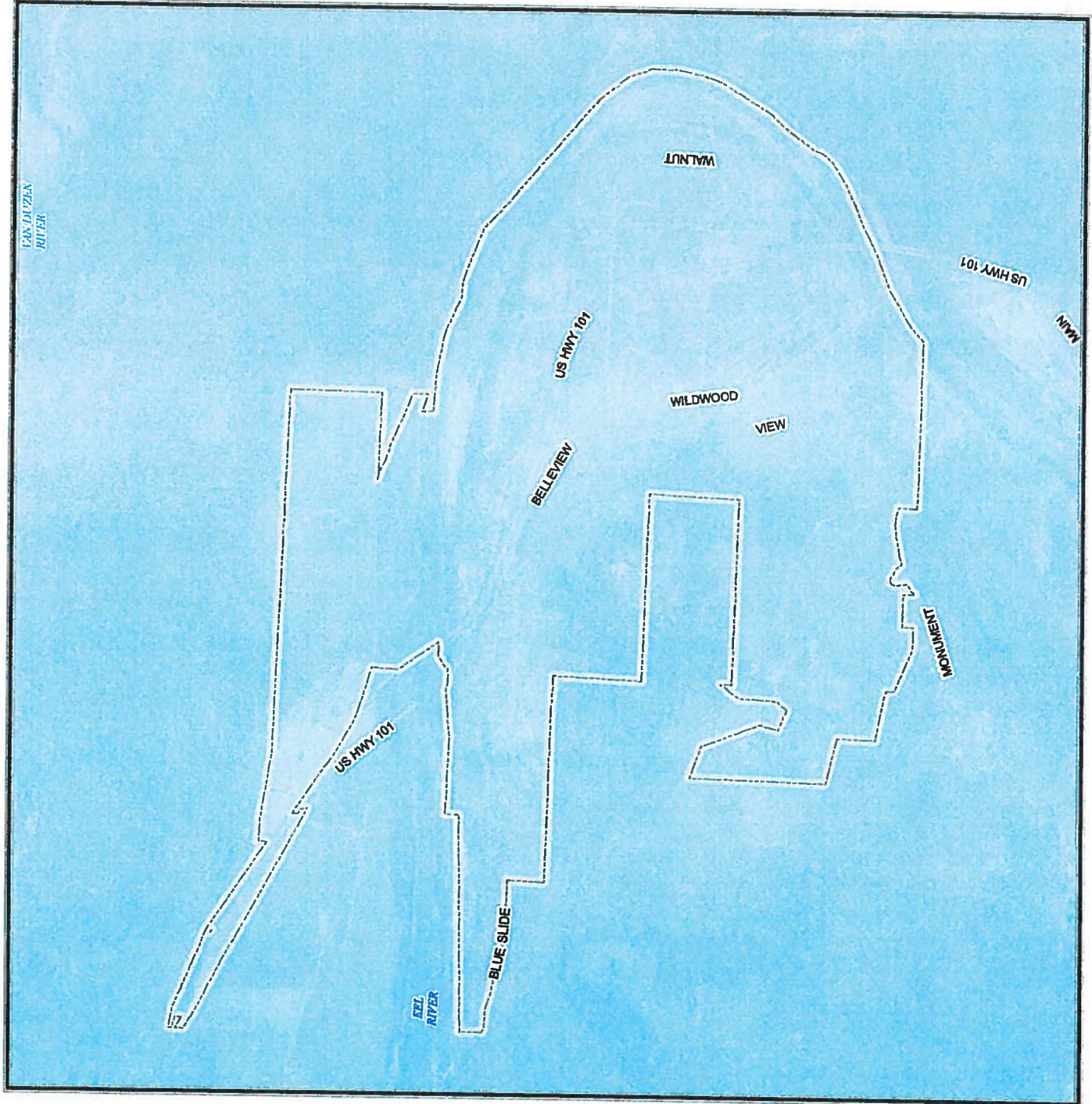


Magnitude: 5.6

Epicenter: offshore of Punta Gorda/Cape
Mendocino at N40 39, W125 28

A ShakeMap is designed as a rapid response tool to portray the extent and variation of ground shaking throughout the affected region immediately following significant earthquakes. Ground motion and intensity maps are derived from peak ground motion amplitudes recorded on seismic sensors (accelerometers), with interpolation based on both estimated amplitudes where data are lacking and site amplification corrections. Color-coded instrumental intensity maps are derived from empirical relations between peak ground motions and modified Mercalli Intensity. Data provided by USGS, event in March 2000.

Base Map Data Sources: County of
Humboldt, CalAtlas, and U.S. Geological
Survey.



CITY OF RIO DELL

Map X-X

Trinidad Fault

7.2 Magnitude Event

Peak Ground Acceleration

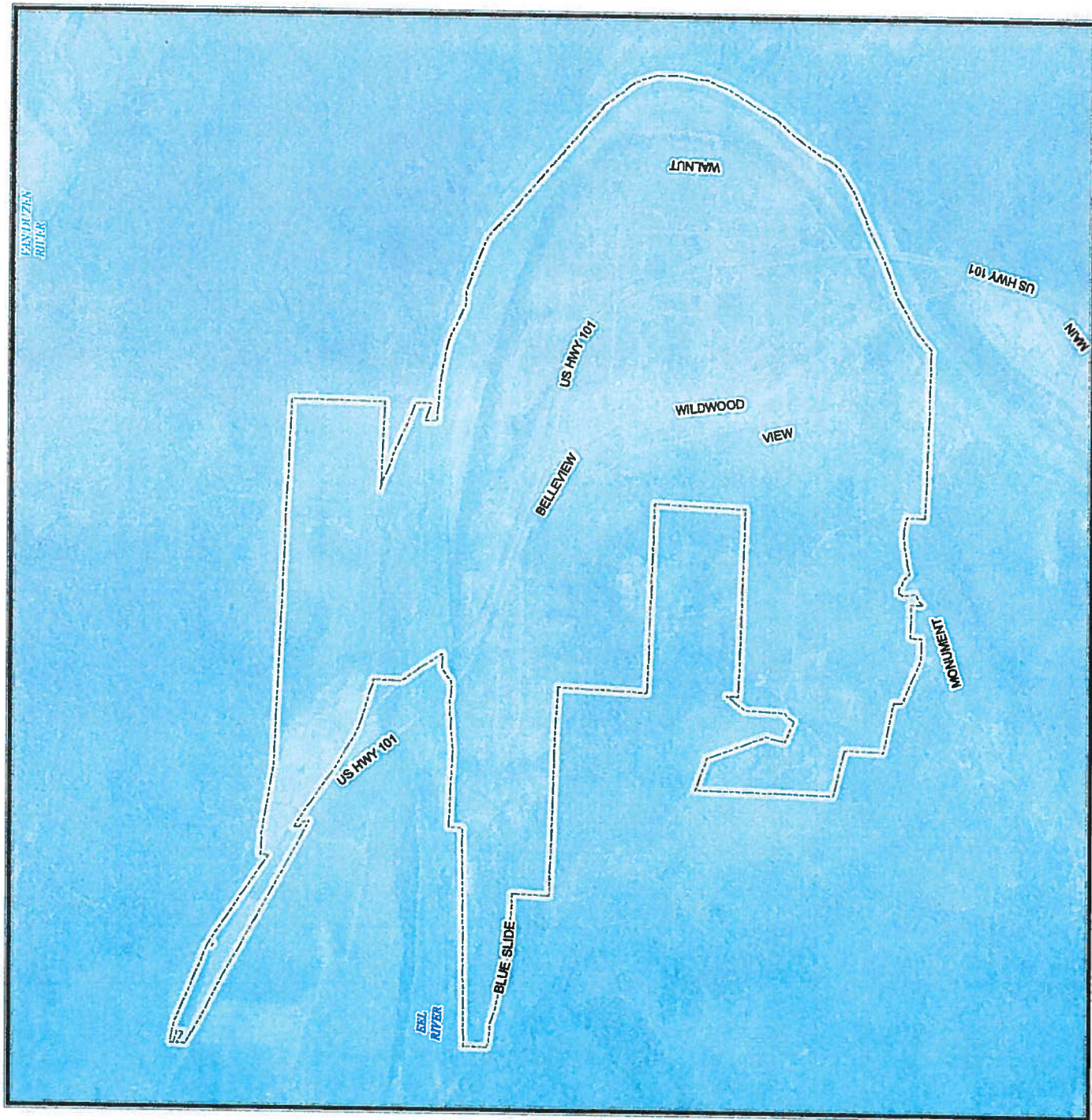
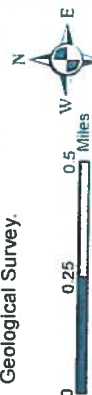
Mercalli Scale, Potential Shaking	
I (Not Felt)	VII (Very Strong)
II - III (Weak)	VIII (Severe)
IV (Light)	IX (Violent)
V (Moderate)	X+ (Extreme)
VI (Strong)	

Magnitude: 7.2

Epicenter: 96.9 miles W of Trinidad, CA

A ShakeMap is designed as a rapid response tool to portray the extent and variation of ground shaking throughout the affected region immediately following significant earthquakes. Ground motion and intensity maps are derived from peak ground motion amplitudes recorded on seismic sensors (accelerometers), with interpolation based on both estimated amplitudes where data are lacking, and site amplification corrections. Color-coded instrumental intensity maps are derived from empirical relations between peak ground motions and modified Mercalli intensity. Data provided by USGS, event in June 2005.

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey.



CITY OF RIO DELL Map X-X

FEMA DFIRM Flood Hazard Areas

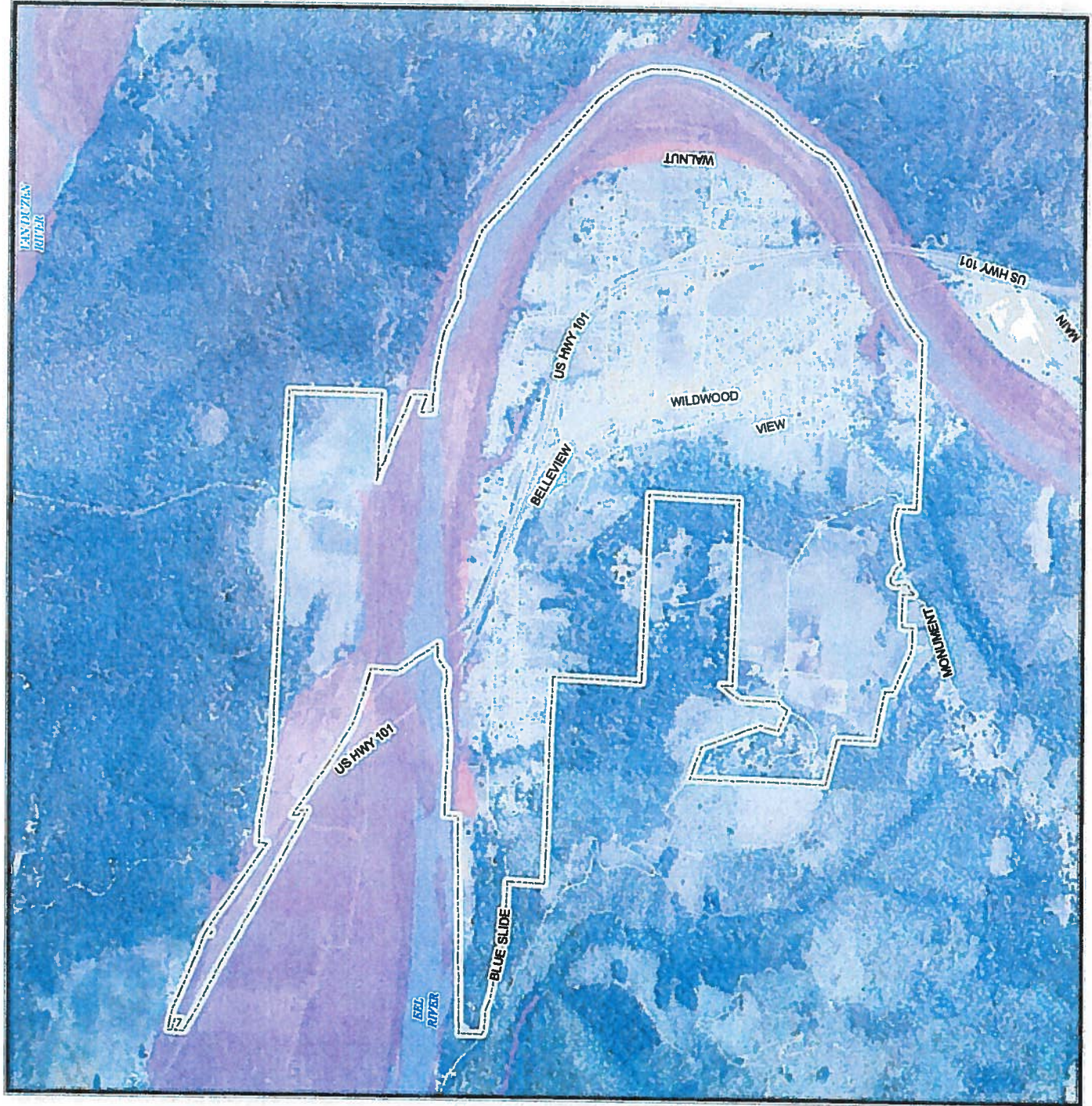
Levees and Annual Flood Hazard

- Levee
- 1 Percent Annual Flood Hazard
- 0.2 Percent Annual Flood Hazard
- X Protected By Levee

Flood hazard areas commonly referred to as the 100 year floodplain are those areas that have an annual flood risk of 1 percent. Areas commonly referred to as the 500 year floodplain have a 0.2 percent annual flood hazard risk.

Flood hazard areas as depicted on 2010 FEMA Digital Flood Insurance Rate Maps (DFIRM). Levee data provided by CA Dept of Water Resources.

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey.



CITY OF RIO DELL Map X-X

Landslide Hazard Areas

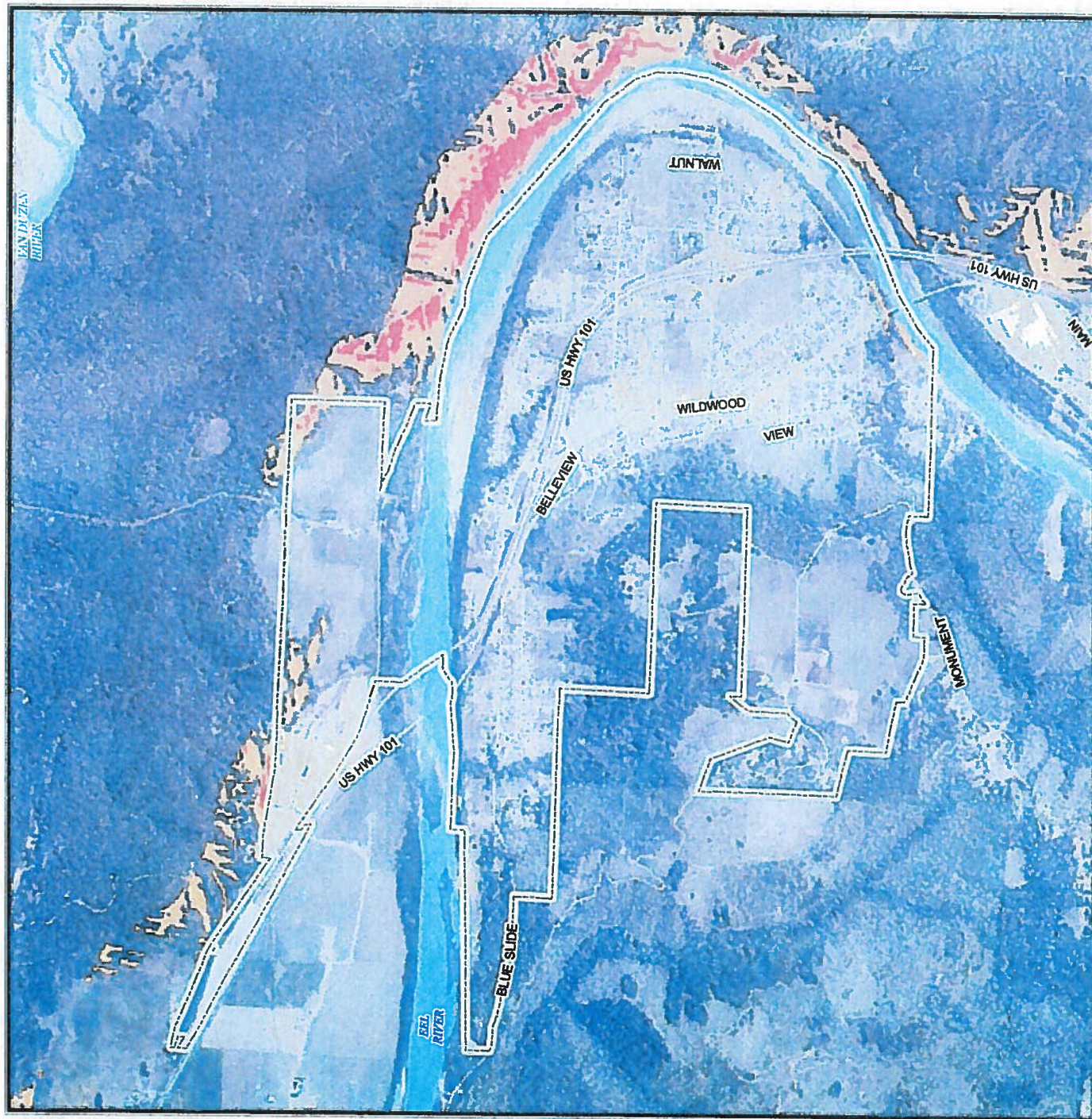
Steep Slopes and NEHRP Soft Soils

- 15-30 percent slope
- Greater than 30 percent slope

Slopes are only mapped in NEHRP class D soils

This map shows the intersection of two datasets - slope derived from a 10 meter DEM provided by USGS (2009) and NEHRP soils data provided by the California Geological Survey (2008).

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey



CITY OF RIO DELL

Map X-X

Landslide Susceptibility

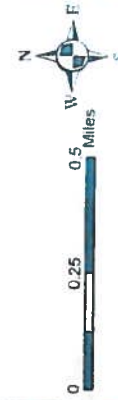
Susceptibility to Landsliding
(0 to X, low to high)



Data provided by California Geological Survey. These data show the relative likelihood of deep-seated landsliding based on regional estimates of rock strength and steepness of slopes. The data use detailed information on the location of past landslides, if available, the location and relative strength of rock units, and steepness of slope to estimate susceptibility to deep-seated landsliding (0 to X, low to high).

These classes express the generalization that on very low slopes, landslide susceptibility is low even in weak materials, and that landslide susceptibility increases with increasing slope angle and decreasing rock strength.

Base Map Data Sources: County of Humboldt, Cal-Atlas, and U.S. Geological Survey.



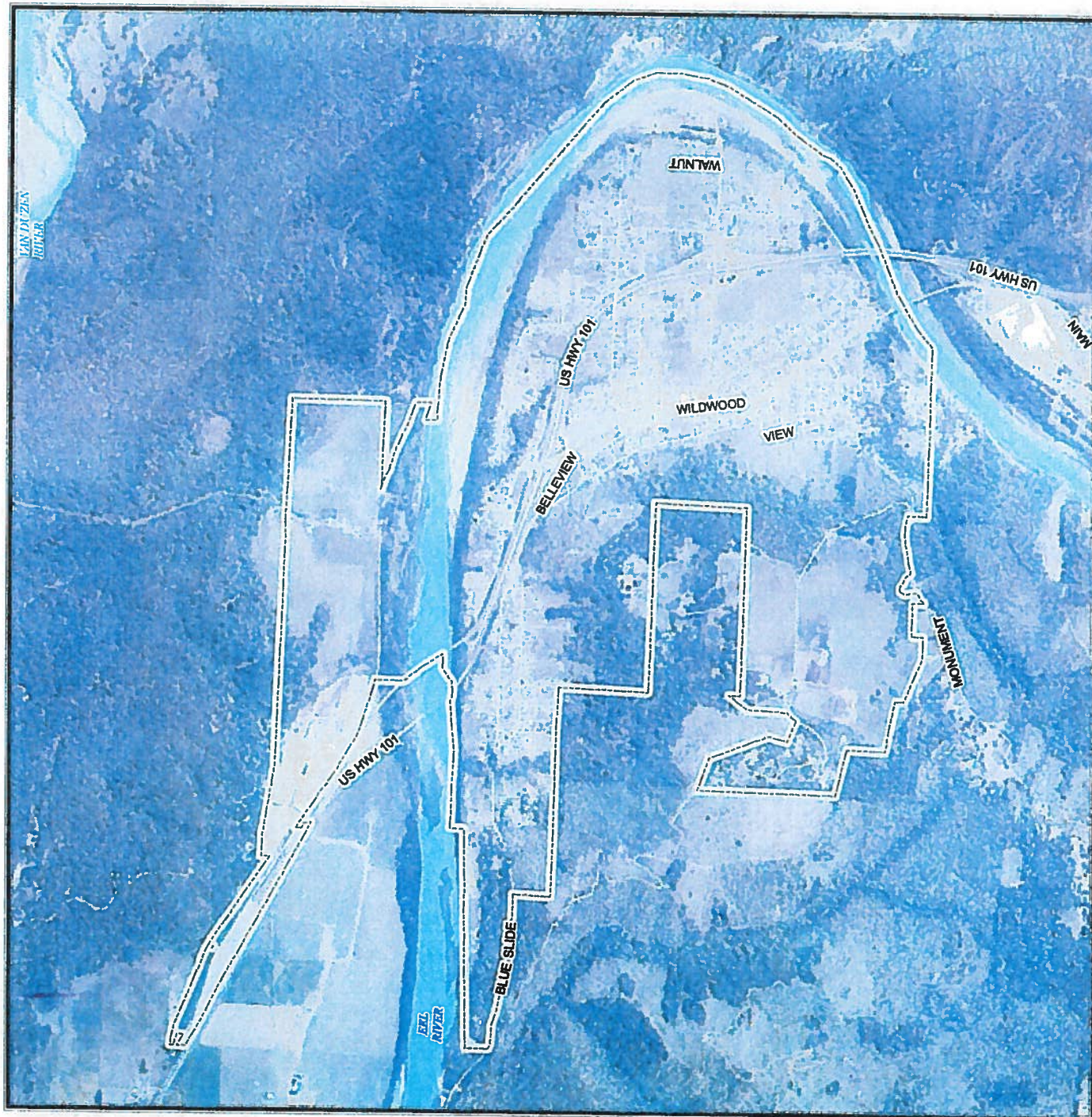
CITY OF RIO DELL Map X-X

Tsunami Inundation Areas

 Tsunami inundation area

Tsunami inundation area data provided by California Emergency Management Agency. The tsunami modeling process utilized the MOST (Method of Splitting Tsunamis) computational program (Version 0), which allows for wave evolution over a variable bathymetry and topography used for the inundation mapping. A suite of tsunami source events was selected for modeling, representing realistic local and distant earthquakes and hypothetical extreme undersea, near-shore landslides. Although an attempt was made to identify a credible upper bound to inundation at any location along the coastline, it remains possible that actual inundation could be greater in a major tsunami event. This map does not represent inundation from a single scenario event. It was created by combining inundation results for an ensemble of source events affecting a given region. For this reason, all of the inundation region in a particular area will not likely be inundated during a single tsunami event. Data published in September 2009.

Base Map Data Sources: County of Humboldt, Cal-Atlas, and U.S. Geological Survey.



CITY OF RIO DELL

Map X-X

Fire Condition Class

Condition Class

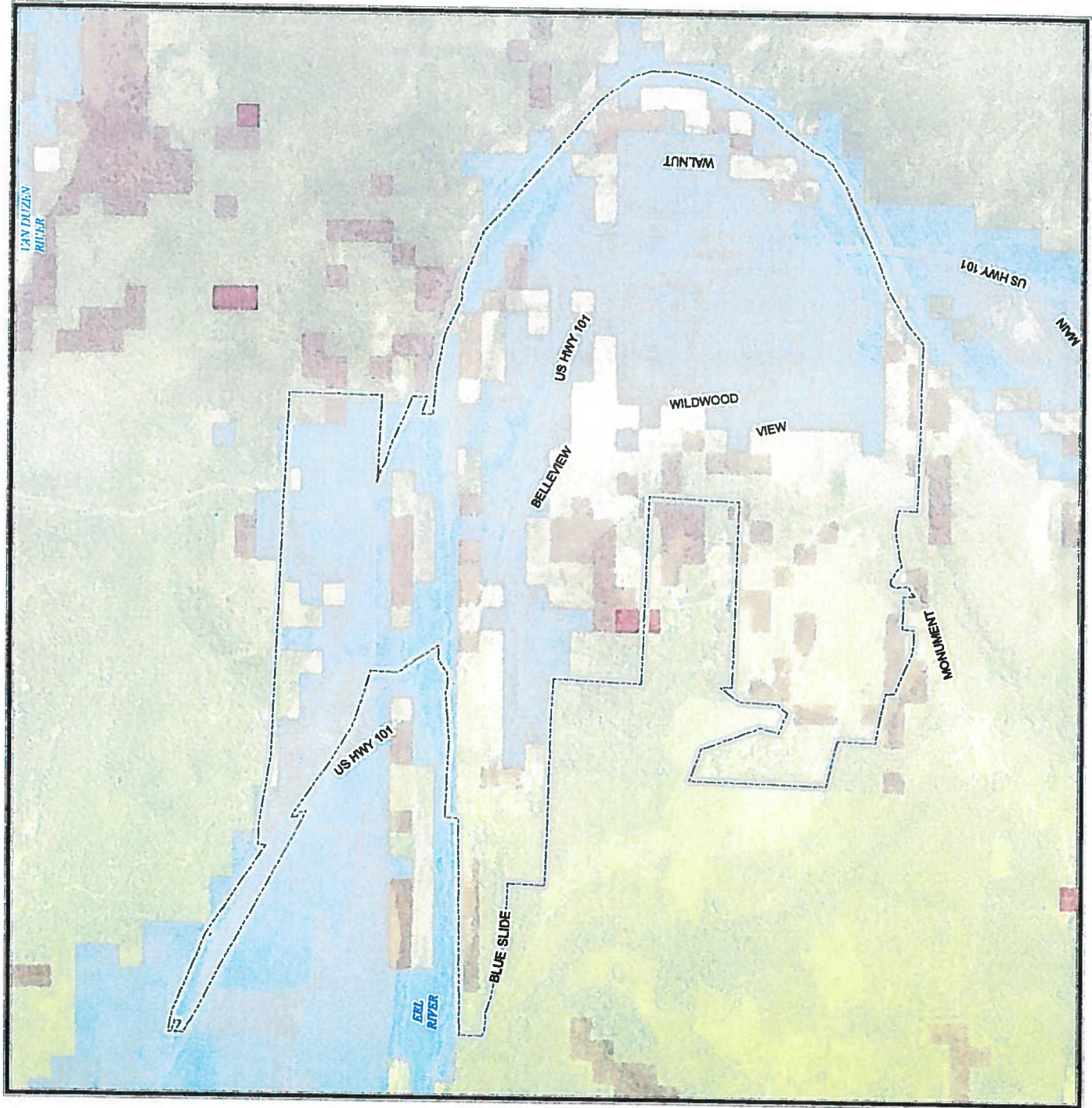


Condition classes refer to risk of key ecosystem component loss.

Fire condition class data provided by CAL FIRE. Condition class refers to the general deviation of ecosystems from their presettlement natural fire regime, although it includes numerous other data classifications and can be viewed as a measure of sensitivity to fire damage to key elements and processes typical of those ecosystems, or fire-related risk to ecosystem health. Dataset last updated November 2003.

Condition class definitions:
 1 - Fire regime within or near historical range.
 2 - Fire regime moderately altered from historical range.
 3 - Fire regime significantly altered from historical range.
 9 - Non Assigned (non-wildlands)

Base Map Data Sources: County of Humboldt, Cal-Atlas, and U.S. Geological Survey



CITY OF RIO DELL Map X-X

Fire Hazard Severity Class

Hazard Class

Very High

High

Moderate

Non-Wildland/Non-Urban

Urban Unzoned

Responsibility Areas

Federal (FRA) Local (LRA)

State (SRA) None

Fire Hazard Severity Zones datasets developed by CAL FIRE, PRC 4201 - 4204 and Govt. Code 51175-89 direct the California Department of Forestry and Fire Protection (CAL FIRE) to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires. The data displayed on this map are a combination of two FHSZ datasets - FHSZs in State Responsibility Areas (SRA) adopted in November 2007 and draft FHSZs for all other areas from January 2007.

Base Map Data Sources: County of Humboldt, Cal-Atlas, and U.S. Geological Survey.



CITY OF RIO DELL

Map X-X

Fire Perimeters

- Cause of Fire
- Arson
 - Campfire
 - Debris
 - Equipment Use
 - Escaped Prescribed Burn
 - Lightning
 - Misc
 - Playing with Fire
 - Powerline
 - Smoking
 - Unknown/Unidentified
 - Vehicle

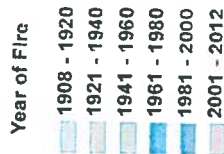
Fire Perimeters dataset provided by CAL FIRE. CAL FIRE, USDA Forest Service Region 5, BLM, NPS, Contract Counties and other agencies jointly maintain a comprehensive fire perimeter GIS layer for public and private lands throughout the state. The data covers fires back to 1878. For the National Park Service, Bureau of Land Management, and US Forest Service, fires of 10 acres and greater are reported. For CAL FIRE, timber fires greater than 50 acres, brush fires greater than 300 acres, and fires that destroy three or more residential dwellings or commercial structures are reported. Dataset updated March 2013.

Base Map Data Sources: County of Humboldt, CalAtlas, and U.S. Geological Survey



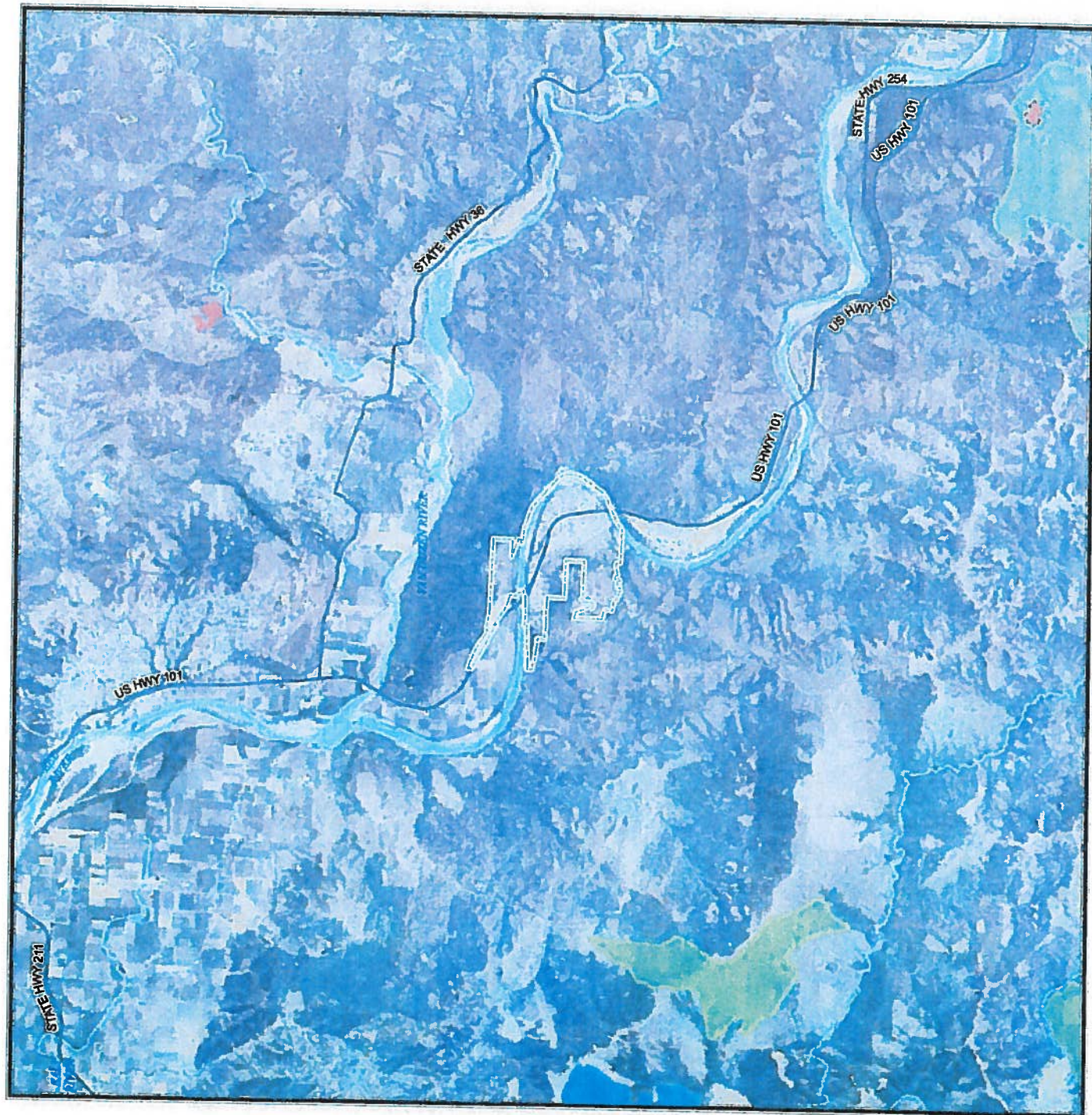
CITY OF RIO DELL Map X-X

Fire Perimeters



Fire Perimeters dataset provided by CAL FIRE, CAL FIRE, USDA Forest Service Region 5, BLM, NPS, Contract Counties and other agencies jointly maintain a comprehensive fire perimeter GIS layer for public and private lands throughout the state. The data covers fires throughout the state. The data covers fires back to 1878. For the National Park Service, Bureau of Land Management, and US Forest Service, fires of 10 acres and greater are reported. For CAL FIRE, timber fires greater than 10 acres, brush fires greater than 50 acres, grass fires greater than 300 acres, and fires that destroy three or more residential dwellings or commercial structures are reported. Dataset updated March 2013.

Base Map Data Sources: County of Humboldt, Cal-Atlas, and U.S. Geological Survey.



CITY OF RIO DELL Map X-X

Natural Fire Regime

Regime

- ☒ Barren/Rock
- ☒ Water, including wetlands
- ☒ Agriculture
- ☒ Urbanized land cover
- ☒ 0-35 year fire frequency, low severity
- ☒ 35-100+ year fire frequency, mixed severity
- ☒ 36-100+ year fire frequency, high severity
- ☒ 200+ year frequency, high severity

Natural fire regime data provided by CAL FIRE. A natural fire regime is a general classification of the role fire would play across a landscape without modern human mechanical intervention. (References: Agee, J.K. 1993. Fire ecology of Pacific Northwest Forests. Island Press, Wash. DC. Brown, J.K. 1995. Fire regimes and their relevance to ecosystem management. Pages 171-178 In Proceedings of Society of American Foresters National Convention, Sept. 18-22, 1994, Anchorage, AK. Society of American Foresters, Wash. DC.) The natural fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity of the fire on the dominant overstory vegetation (amount of vegetation replacement). Dataset last updated November 2003

Base Map Data Sources: County of Humboldt, CalAtlas and U.S. Geological Survey

